Drouare, Douglas

Subject: Sax and Fox Lust Site
Location: R7-RO2.2-E06-10/R7-RO

Start: Mon 9/19/2016 10:00 AM
End: Mon 9/19/2016 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Bustos, Patrick
Required Attendees: Bustos, Patrick; Drouare, Douglas; Bosch, Raymond; Reed, Brandy
Optional Attendees: Holder, Stanley; Hayes, Scott

Good to hear progress is being made

Our over-arching concern is making sure there is continued and timely project progression

We are here to offer whatever assistance we can in our role as a regulator.

We will be responding to your latest transmittal

Tribe

Consultant

Tank Manuf.

Insurance Company

Drouare, Douglas

From: Drouare, Douglas
Sent: Monday, September 19, 2016 7:16 AM
To: 'Sac & Fox Truck Stop'
Cc: Hayes, Scott; Raymond Bosch; Wilfredo Rosado-Chaparro; Patrick Bustos; 'M.Junker'; lisa.montgomery@sacfoxenviro.org
Subject: RE: Truck Stop Reports

Thank you for transmitting this information. We will begin reviewing it immediately.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: Sac & Fox Truck Stop [mailto:sacfoxtsmgr@jbntelco.com]
Sent: Friday, September 16, 2016 4:59 PM
To: Drouare, Douglas <drouare.douglas@epa.gov>
Subject: RE: Truck Stop Reports

Doug,

Attached is an update on the continued efforts to finalize the UST rupture at Sac and Fox Truck Stop.

Sincerely,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

From: Drouare, Douglas [mailto:drouare.douglas@epa.gov]
Sent: Friday, July 8, 2016 8:35 AM
To: Sac & Fox Truck Stop; mark.junker@sacfoxenviro.org; lisa.montgomery@sacfoxenviro.org
Cc: Rosado-Chaparro, Wilfredo; Pomes, Michael; Hayes, Scott
Subject: RE: Truck Stop Reports

Thank you for the update. I am forwarding your message to those at our agency whose focus is on the UST systems (Wilfredo & Michael). My focus is on the release of petroleum that has occurred and the investigation and corrective action that must follow. We are in the process of drafting a formal response to your latest electronic mail.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: Sac & Fox Truck Stop [mailto:sacfoxtsmgr@jbntelco.com]
Sent: Thursday, July 07, 2016 5:34 PM

To: Drouare, Douglas <drouare.douglas@epa.gov>
Subject: RE: Truck Stop Reports

Doug,

Just a reminder Sac and Fox Truck Stop ruptured tank excavation will begin Monday July 11, 2016.

Thank You,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

From: Drouare, Douglas [mailto:drouare.douglas@epa.gov]
Sent: Friday, June 24, 2016 11:19 AM
To: mark.junker@sacfoxenviro.org; Sac & Fox Truck Stop; lisa.montgomery@sacfoxenviro.org
Cc: Hayes, Scott
Subject: RE: Truck Stop Reports

Good morning Mark,

The January 22, 2016 Site Investigation Report is the type of technical report we were and are expecting for this project. It was helpful in describing the current status of the project. We are wondering why it took five months to get to us.

Considering this release is near to being a year old, we consider progress toward fully evaluating the extent and degree of impact to be behind schedule. Further efforts and communications are going to need to be completed in a more timely manner.

We have the following questions...

What is being done to recover free product?

How much free product has been recovered to date?

How does this compare to the volume of fuel released?

Where is the work plan/proposal for investigation services that will be necessary to fully evaluate the degree and extent of the contaminant plume? We are skeptical that two wells will be adequate to do this as indicated in the attached notes. Perhaps the work plan/proposal is one of the documents that could not be sent by e-mail??? If so, please mail it to us ASAP so that we can review and comment.

As previously stated, we consider this project to be behind schedule. Future efforts and communications are going to need to be completed in a more timely manner.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: M.Junker [mailto:mark.junker@sacfoxenviro.org]
Sent: Wednesday, June 22, 2016 12:07 PM
To: Drouare, Douglas <drouare.douglas@epa.gov>
Cc: Edmore Green <egreen@sacandfoxcasino.com>; Robert L. Trump <rtrump@totalpetroleumservices.com>; 'Sac & Fox Truck Stop' <sacfoxtsmgr@jbntelco.com>
Subject: Truck Stop Reports

Good afternoon Doug,
Due to the capabilities of the computers in my office I am forwarding to you the report that Theresa Armbruster created to reflect the most current information we have on our tank situation as well as time line reflecting the activity undertaken to characterize and remediate the site.

There are the three attachments included. The first is her report which sites nine different attachments. Due to formatting issues only one is included. It is the one labeled attachment 9. The second attachment include items 1-8. The 3rd attachment contains the bulk of the site characterization.

The documentation represents the most thorough compilation of all data we capable of providing at this time.

You are more than welcome to come visit us at the Truck Stop on July 11, 2016 when we will begin excavating the tank and formulating some plans for completing the data gathering process and remediation.

Mark Junker
Tribal Response Coordinator
Sac & Fox Nation Of Missouri in Kansas and Nebraska
(785) 742-4706

Attachment #8

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

July 27, 2016

Robert Trump
Total Petroleum Services
16601 W. 132nd Circle
Olathe, KS 66062

RE: Project: SAC-N-FOX
Pace Project No.: 60223766

Dear Robert Trump:
Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sherri Rosenstangle

Sherri Rosenstangle
sherri.rosenstangle@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: SAC-N-FOX
Pace Project No.: 60223766

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

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SAMPLE SUMMARY

Project: SAC-N-FOX
Pace Project No.: 60223766

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60223766001	F2-GW	Water	07/11/16 16:30	07/15/16 17:10

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SAMPLE ANALYTE COUNT

Project: SAC-N-FOX
Pace Project No.: 60223766

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60223766001	F2-GW	EPA 8015 Alcohol-Glycol	BJW	1	PASI-I
		EPA 6010	SMW	7	PASI-K
		EPA 6010	IP	1	PASI-M
		EPA 7470	TDS	1	PASI-K
		EPA 5030B/8260	PGH	8	PASI-K
		SM 4500-H+B	LDB	1	PASI-K

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ANALYTICAL RESULTS

Project: SAC-N-FOX
Pace Project No.: 60223766

Sample: F2-GW **Lab ID: 60223766001** Collected: 07/11/16 16:30 Received: 07/15/16 17:10 Matrix: Water

Comments: • Samples requiring thermal preservation were received outside of recommended temperature limits of 0-6 degrees Celsius.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols in water	Analytical Method: EPA 8015 Alcohol-Glycol							
Ethanol	7.2	mg/L	5.0	1		07/20/16 15:23	64-17-5	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:17	7440-38-2	
Sulfur	5310	ug/L	500	1	07/21/16 14:15	07/22/16 20:05		
Barium	2260	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:17	7440-39-3	
Cadmium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:17	7440-43-9	
Chromium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:17	7440-47-3	
Lead	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:17	7439-92-1	
Selenium	ND	ug/L	15.0	1	07/21/16 11:15	07/22/16 11:17	7782-49-2	
Silver	ND	ug/L	7.0	1	07/21/16 11:15	07/22/16 11:17	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	07/25/16 09:40	07/25/16 14:00	7439-97-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	5460	ug/L	50.0	50		07/22/16 14:12	71-43-2	
Ethylbenzene	136	ug/L	1.0	1		07/20/16 14:44	100-41-4	
Toluene	11600	ug/L	250	250		07/25/16 15:30	108-88-3	
Xylene (Total)	9060	ug/L	150	50		07/22/16 14:12	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	95	%	77-130	1		07/20/16 14:44	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		07/20/16 14:44	17060-07-0	
Toluene-d8 (S)	102	%	80-120	1		07/20/16 14:44	2037-26-5	
Preservation pH	1.0		0.10	1		07/20/16 14:44		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	6.8	Std. Units	0.10	1		07/20/16 12:45		H6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 342803
QC Batch Method: EPA 8015 Alcohol-Glycol
Analysis Method: EPA 8015 Alcohol-Glycol
Analysis Description: EPA 8015 Modified
Associated Lab Samples: 60223766001

METHOD BLANK: 1587707 Matrix: Water
Associated Lab Samples: 60223766001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethanol	mg/L	ND	5.0	07/20/16 11:49	

LABORATORY CONTROL SAMPLE: 1587708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethanol	mg/L	50	46.2	92	70-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1587709 1587710

Parameter	Units	60223575001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethanol	mg/L	ND	50	50	32.0	38.9	64	78	61-143	19	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 439735
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 60223766001

METHOD BLANK: 1799381 Matrix: Water
Associated Lab Samples: 60223766001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	07/25/16 12:21	

LABORATORY CONTROL SAMPLE: 1799382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1799383 1799384

Parameter	Units	60223593001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.61	5	5	5.0	5.0	88	88	75-125	0	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 439438
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60223766001

METHOD BLANK: 1797181
Matrix: Water
Associated Lab Samples: 60223766001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	07/22/16 11:08	
Barium	ug/L	ND	10.0	07/22/16 11:08	
Cadmium	ug/L	ND	5.0	07/22/16 11:08	
Chromium	ug/L	ND	5.0	07/22/16 11:08	
Lead	ug/L	ND	5.0	07/22/16 11:08	
Selenium	ug/L	ND	15.0	07/22/16 11:08	
Silver	ug/L	ND	7.0	07/22/16 11:08	

LABORATORY CONTROL SAMPLE: 1797182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1080	108	80-120	
Barium	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	1120	112	80-120	
Chromium	ug/L	1000	961	96	80-120	
Lead	ug/L	1000	1110	111	80-120	
Selenium	ug/L	1000	1100	110	80-120	
Silver	ug/L	500	496	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1797183 1797184

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1110	1120	110	111	75-125	1	20	
Barium	ug/L	2260	1000	1000	3210	3240	96	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Chromium	ug/L	ND	1000	1000	926	930	93	93	75-125	0	20	
Lead	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	
Selenium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Silver	ug/L	ND	500	500	503	504	101	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 426351
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60223766001

METHOD BLANK: 2321335
Matrix: Water
Associated Lab Samples: 60223766001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfur	ug/L	ND	500	07/22/16 19:58	

LABORATORY CONTROL SAMPLE: 2321336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfur	ug/L	20000	20000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2321337 2321338

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfur	ug/L	5310	20000	20000	25400	26700	101	107	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 439301
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223766001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1796709
Associated Lab Samples: 60223766001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	1.0	07/20/16 09:09	
1,2-Dichloroethane-d4 (S)	%	96	81-127	07/20/16 09:09	
4-Bromofluorobenzene (S)	%	97	77-130	07/20/16 09:09	
Toluene-d8 (S)	%	99	80-120	07/20/16 09:09	

LABORATORY CONTROL SAMPLE: 1796710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylbenzene	ug/L	20	21.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			99	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1796711 1796712

Parameter	Units	60223758002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethylbenzene	ug/L	ND	20	20	22.1	22.2	110	111	29-151	0	45	
1,2-Dichloroethane-d4 (S)	%						98	95	81-127			
4-Bromofluorobenzene (S)	%						96	96	77-130			
Toluene-d8 (S)	%						98	100	80-120			
Preservation pH		1.0			1.0	1.0				0		

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REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 439616
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223766001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1798182
Associated Lab Samples: 60223766001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	07/22/16 12:30	
Xylene (Total)	ug/L	ND	3.0	07/22/16 12:30	
1,2-Dichloroethane-d4 (S)	%	100	81-127	07/22/16 12:30	
4-Bromofluorobenzene (S)	%	99	77-130	07/22/16 12:30	
Toluene-d8 (S)	%	100	80-120	07/22/16 12:30	

LABORATORY CONTROL SAMPLE: 1798183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.9	100	79-116	
Xylene (Total)	ug/L	60	58.4	97	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			100	80-120	

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REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223766

QC Batch: 439782
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223766001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1799456
Associated Lab Samples: 60223766001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	07/25/16 10:39	
1,2-Dichloroethane-d4 (S)	%	105	81-127	07/25/16 10:39	
4-Bromofluorobenzene (S)	%	97	77-130	07/25/16 10:39	
Toluene-d8 (S)	%	97	80-120	07/25/16 10:39	

LABORATORY CONTROL SAMPLE: 1799457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	20.2	101	80-120	
1,2-Dichloroethane-d4 (S)	%			102	81-127	
4-Bromofluorobenzene (S)	%			97	77-130	
Toluene-d8 (S)	%			99	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: SAC-N-FOX
Pace Project No.: 60223766

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis
PASI-K	Pace Analytical Services - Kansas City
PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: 439616

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 439782

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SAC-N-FOX
Pace Project No.: 60223766

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60223766001	F2-GW	EPA 8015 Alcohol-Glycol	342803		
60223766001	F2-GW	EPA 3010	426351	EPA 6010	426659
60223766001	F2-GW	EPA 3010	439438	EPA 6010	439538
60223766001	F2-GW	EPA 7470	439735	EPA 7470	439802
60223766001	F2-GW	EPA 5030B/8260	439301		
60223766001	F2-GW	EPA 5030B/8260	439616		
60223766001	F2-GW	EPA 5030B/8260	439782		
60223766001	F2-GW	SM 4500-H+B	439244		

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Sample Condition Upon Receipt

WO# : 60223766

60223766

Client Name: Total Petroleum

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☒

Tracking #: ______ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☒ Seals intact: Yes ☐ No ☒

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.1 (T-266) / CF -0.1 T-239 **Type of Ice:** (Wet) Blue None (circle one) ☐ Samples received on ice, cooling process has begun.

Cooler Temperature: 19.2

Temperature should be above freezing to 6°C

Date and Initials of person examining contents: JB 7/16

Chain of Custody present:	☒Yes	☐No	☐N/A	1. Out of temp
Chain of Custody filled out:	☒Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☒Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☒Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☒Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☒Yes	☐No	☐N/A	6. pH
Rush Turn Around Time requested:	☐Yes	☒No	☐N/A	7.
Sufficient volume:	☒Yes	☐No	☐N/A	8.
Correct containers used:	☒Yes	☐No	☐N/A	
Pace containers used:	☒Yes	☐No	☐N/A	9.
Containers intact:	☒Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes	☐No	☒N/A	12.
Sample labels match COC:	☒Yes	☐No	☐N/A	
Includes date/time/ID/analyses Matrix: WT				13.
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	14.
Exceptions: (VOA), Coliform, O&G, WI-DRO (water)	☒Yes	☐No		Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): 7/15	☒Yes	☐No	☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes	☒No	☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes	☐No	☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes	☐No	☒N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y (N)

Person Contacted: Robert T Date/Time: 7.15.16

Comments/ Resolution: Report as found + footnote temp issue

Project Manager Review: [signature] Date: 7.15.16

F-KS-C-003-Rev.9, 30June2015

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A: Required Client Information:		Section B: Required Project Information:		Section C: Invoice Information:	
Company:	Total Petroleum Services	Report To:	Robert Trump	Attention:	Robert Trump
Address:	15601 W. 132nd Circle, Olathe, KS 66062	Copy To:		Company Name:	SAME AS CLIENT
				Address:	
Email:	roberttrump@gmail.com	Purchase Order #:	SAL-N-BX	Pace Quote:	
Phone:	(913)461-5985 Fax:	Project Name:		Pace Project Manager:	sherri.rosenstangle@pacelabs.com,
Requested Due Date:	7-23-16	Project #:	B110	Pace Profile #:	~~5845~~ 5066, 2

Regulatory Agency	
State / Location	KS

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	BTEX	RCRA Metals	pH	Ethanol	Sulfur		Residual Chlorine (Y/N)	
1	F2-GW BP2U (2)BP3N (3)DG4H	WT	G	7/1/16	4:30P			2															X	(2)DG4U		60223766
2		|	|	|	|			1													X					001
3		|	|	|	|			2					X							X						
4		|	|	|	|			3					X						X							
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Tim Smith	7-15-16	1710	[signature]	7/15	1710	19.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Timothy Smith

SIGNATURE of SAMPLER: [signature] DATE Signed: 7-15-16

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July 27, 2016

Robert Trump
Total Petroleum Services
16601 W. 132nd Circle
Olathe, KS 66062

RE: Project: SAC-N-FOX
Pace Project No.: 60223764

Dear Robert Trump:
Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sherri Rosenstangle

Sherri Rosenstangle
sherri.rosenstangle@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
9608 Loiret Blvd.
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CERTIFICATIONS

Project: SAC-N-FOX
Pace Project No.: 60223764

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

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SAMPLE SUMMARY

Project: SAC-N-FOX
Pace Project No.: 60223764

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60223764001	F1-GW	Water	07/11/16 16:30	07/15/16 17:10

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SAMPLE ANALYTE COUNT

Project: SAC-N-FOX
Pace Project No.: 60223764

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60223764001	F1-GW	EPA 8015 Alcohol-Glycol	BJW	1	PASI-I
		EPA 6010	SMW	7	PASI-K
		EPA 6010	IP	1	PASI-M
		EPA 7470	TDS	1	PASI-K
		EPA 5030B/8260	PGH	8	PASI-K
		SM 4500-H+B	LDB	1	PASI-K

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ANALYTICAL RESULTS

Project: SAC-N-FOX
Pace Project No.: 60223764

Sample: F1-GW **Lab ID: 60223764001** Collected: 07/11/16 16:30 Received: 07/15/16 17:10 Matrix: Water

Comments: • Samples requiring thermal preservation were received outside of recommended temperature limits of 0-6 degrees Celsius.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols in water	Analytical Method: EPA 8015 Alcohol-Glycol							
Ethanol	**5.6**	mg/L	5.0	1		07/20/16 15:32	64-17-5	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**12.2**	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:12	7440-38-2	
Sulfur	**6700**	ug/L	500	1	07/21/16 14:15	07/22/16 20:24		
Barium	**2230**	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:12	7440-39-3	
Cadmium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:12	7440-43-9	
Chromium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:12	7440-47-3	
Lead	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:12	7439-92-1	
Selenium	ND	ug/L	15.0	1	07/21/16 11:15	07/22/16 11:12	7782-49-2	
Silver	ND	ug/L	7.0	1	07/21/16 11:15	07/22/16 11:12	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	07/25/16 09:40	07/25/16 13:55	7439-97-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3110**	ug/L	50.0	50		07/22/16 13:57	71-43-2	
Ethylbenzene	**36.7**	ug/L	1.0	1		07/20/16 14:15	100-41-4	
Toluene	**5420**	ug/L	50.0	50		07/22/16 13:57	108-88-3	
Xylene (Total)	**6660**	ug/L	150	50		07/22/16 13:57	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	77-130	1		07/20/16 14:15	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-127	1		07/20/16 14:15	17060-07-0	
Toluene-d8 (S)	100	%	80-120	1		07/20/16 14:15	2037-26-5	
Preservation pH	**1.0**		0.10	1		07/20/16 14:15		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**6.9**	Std. Units	0.10	1		07/20/16 12:45		H6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 342803
QC Batch Method: EPA 8015 Alcohol-Glycol
Associated Lab Samples: 60223764001

Analysis Method: EPA 8015 Alcohol-Glycol
Analysis Description: EPA 8015 Modified

METHOD BLANK: 1587707
Associated Lab Samples: 60223764001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethanol	mg/L	ND	5.0	07/20/16 11:49	

LABORATORY CONTROL SAMPLE: 1587708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethanol	mg/L	50	46.2	92	70-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1587709 1587710

Parameter	Units	60223575001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethanol	mg/L	ND	50	50	32.0	38.9	64	78	61-143	19	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 439735
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 60223764001

METHOD BLANK: 1799381
Matrix: Water
Associated Lab Samples: 60223764001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	07/25/16 12:21	

LABORATORY CONTROL SAMPLE: 1799382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1799383 1799384

Parameter	Units	60223593001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.61	5	5	5.0	5.0	88	88	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 439438
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60223764001

METHOD BLANK: 1797181
Matrix: Water
Associated Lab Samples: 60223764001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	07/22/16 11:08	
Barium	ug/L	ND	10.0	07/22/16 11:08	
Cadmium	ug/L	ND	5.0	07/22/16 11:08	
Chromium	ug/L	ND	5.0	07/22/16 11:08	
Lead	ug/L	ND	5.0	07/22/16 11:08	
Selenium	ug/L	ND	15.0	07/22/16 11:08	
Silver	ug/L	ND	7.0	07/22/16 11:08	

LABORATORY CONTROL SAMPLE: 1797182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1080	108	80-120	
Barium	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	1120	112	80-120	
Chromium	ug/L	1000	961	96	80-120	
Lead	ug/L	1000	1110	111	80-120	
Selenium	ug/L	1000	1100	110	80-120	
Silver	ug/L	500	496	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1797183 1797184

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1110	1120	110	111	75-125	1	20	
Barium	ug/L	2260	1000	1000	3210	3240	96	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Chromium	ug/L	ND	1000	1000	926	930	93	93	75-125	0	20	
Lead	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	
Selenium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Silver	ug/L	ND	500	500	503	504	101	101	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 426351
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60223764001

METHOD BLANK: 2321335
Matrix: Water
Associated Lab Samples: 60223764001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfur	ug/L	ND	500	07/22/16 19:58	

LABORATORY CONTROL SAMPLE: 2321336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfur	ug/L	20000	20000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2321337 2321338

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfur	ug/L	5310	20000	20000	25400	26700	101	107	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 439301
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223764001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1796709
Associated Lab Samples: 60223764001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	1.0	07/20/16 09:09	
1,2-Dichloroethane-d4 (S)	%	96	81-127	07/20/16 09:09	
4-Bromofluorobenzene (S)	%	97	77-130	07/20/16 09:09	
Toluene-d8 (S)	%	99	80-120	07/20/16 09:09	

LABORATORY CONTROL SAMPLE: 1796710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylbenzene	ug/L	20	21.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			99	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1796711 1796712

Parameter	Units	60223758002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethylbenzene	ug/L	ND	20	20	22.1	22.2	110	111	29-151	0	45	
1,2-Dichloroethane-d4 (S)	%						98	95	81-127			
4-Bromofluorobenzene (S)	%						96	96	77-130			
Toluene-d8 (S)	%						98	100	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223764

QC Batch: 439616
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223764001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1798182
Associated Lab Samples: 60223764001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	07/22/16 12:30	
Toluene	ug/L	ND	1.0	07/22/16 12:30	
Xylene (Total)	ug/L	ND	3.0	07/22/16 12:30	
1,2-Dichloroethane-d4 (S)	%	100	81-127	07/22/16 12:30	
4-Bromofluorobenzene (S)	%	99	77-130	07/22/16 12:30	
Toluene-d8 (S)	%	100	80-120	07/22/16 12:30	

LABORATORY CONTROL SAMPLE: 1798183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.9	100	79-116	
Toluene	ug/L	20	19.1	95	80-120	
Xylene (Total)	ug/L	60	58.4	97	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: SAC-N-FOX
Pace Project No.: 60223764

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis
PASI-K	Pace Analytical Services - Kansas City
PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: 439616

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SAC-N-FOX
Pace Project No.: 60223764

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60223764001	F1-GW	EPA 8015 Alcohol-Glycol	342803		
60223764001	F1-GW	EPA 3010	426351	EPA 6010	426659
60223764001	F1-GW	EPA 3010	439438	EPA 6010	439538
60223764001	F1-GW	EPA 7470	439735	EPA 7470	439802
60223764001	F1-GW	EPA 5030B/8260	439301		
60223764001	F1-GW	EPA 5030B/8260	439616		
60223764001	F1-GW	SM 4500-H+B	439244		

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Sample Condition Upon Receipt

WO# : 60223764

60223764

Client Name: Total Petroleum

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☒

Tracking #: ______ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☒ Seals intact: Yes ☐ No ☒

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: (CF +1.1) T-266 (circled) / (CF -0.1) T-239 **Type of Ice:** Wet (circled) Blue None (circle one) ☐ Samples received on ice, cooling process has begun.

Cooler Temperature: 19.2

Temperature should be above freezing to 6°C

Date and Initials of person examining contents: JB 7/16

Chain of Custody present:	☒Yes	☐No	☐N/A	1. Out of temp
Chain of Custody filled out:	☒Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☒Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☒Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☒Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☒Yes	☐No	☐N/A	6. pH
Rush Turn Around Time requested:	☐Yes	☒No	☐N/A	7.
Sufficient volume:	☒Yes	☐No	☐N/A	8.
Correct containers used:	☒Yes	☐No	☐N/A	
Pace containers used:	☒Yes	☐No	☐N/A	9.
Containers intact:	☒Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes	☐No	☒N/A	12.
Sample labels match COC:	☒Yes	☐No	☐N/A	
Includes date/time/ID/analyses Matrix: WT				13.
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	14.
Exceptions: VOA (circled), Coliform, O&G, WI-DRO (water)	☒Yes	☐No		Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): 7/15	☒Yes	☐No	☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes	☒No	☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes	☐No	☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes	☐No	☒N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / N (circled) Field Data Required? Y / N (circled)

Person Contacted: Robert T Date/Time: 7.15.16

Comments/ Resolution: Report Standard - Footnote temp issue

Project Manager Review: [signature] Date: 7.15.16

F-KS-C-003-Rev.9, 30June2015

...Required Document
...MENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Required Project Information:		Section C Invoice Information:	
... Natural Services	Report To: Robert Trump	Attention: TPS LLC	
Address: 16601 W. 132nd Circle	Copy To:	Company Name: Same as Client	Regulatory Agency
Olathe, KS 66062		Address:	
Email: roberttrump@gmail.com	Purchase Order #:	Pace Quote:	
Phone: (913)461-5985 Fax:	Project Name: SGL-N-Trx	Pace Project Manager: sherri.rosenstangle@pacelabs.com,	State / Location
Requested Due Date: 7-23-16	Project #: 1511C	Pace Profile #: ~~5641-5~~ 5641-2	KS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): BTEX	RCRA Metals	pH	Ethanol	Sulfur				Residual Chlorine (Y/N)	602237604
1	F1-GW BTEX (2)BPSU (3)DGAU (2)DGAU TB (2)DGAU TB	WT	G	7-14-16	430pm				9															X		(2) DGAU			
2	"	"	"	"	"				"													X							
3	"	"	"	"	"				WRJ				X							X									
4	"	"	"	"	"				"				X							X									
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Tim Smith	7/15/16	17:10		7/15	17:10	1.1.2	Y	N	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Timothy Smith	DATE Signed:	7-15-16	
SIGNATURE of SAMPLER:				

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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July 27, 2016

Robert Trump
Total Petroleum Services
16601 W. 132nd Circle
Olathe, KS 66062

RE: Project: SAC-N-FOX
Pace Project No.: 60223765

Dear Robert Trump:
Enclosed are the analytical results for sample(s) received by the laboratory on July 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sherri Rosenstangle

Sherri Rosenstangle
sherri.rosenstangle@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: SAC-N-FOX
Pace Project No.: 60223765

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587

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SAMPLE SUMMARY

Project: SAC-N-FOX
Pace Project No.: 60223765

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60223765001	F3-GW	Water	07/11/16 16:30	07/15/16 17:10

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SAMPLE ANALYTE COUNT

Project: SAC-N-FOX
Pace Project No.: 60223765

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60223765001	F3-GW	EPA 8015 Alcohol-Glycol	BJW	1	PASI-I
		EPA 6010	SMW	7	PASI-K
		EPA 6010	IP	1	PASI-M
		EPA 7470	TDS	1	PASI-K
		EPA 5030B/8260	PGH	8	PASI-K
		SM 4500-H+B	LDB	1	PASI-K

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ANALYTICAL RESULTS

Project: SAC-N-FOX
Pace Project No.: 60223765

Sample: F3-GW **Lab ID: 60223765001** Collected: 07/11/16 16:30 Received: 07/15/16 17:10 Matrix: Water

Comments: • Samples requiring thermal preservation were received outside of recommended temperature limits of 0-6 degrees Celsius.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols in water	Analytical Method: EPA 8015 Alcohol-Glycol							
Ethanol	**8.6**	mg/L	5.0	1		07/20/16 15:42	64-17-5	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**12.2**	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:14	7440-38-2	
Sulfur	**5660**	ug/L	500	1	07/21/16 14:15	07/22/16 20:27		
Barium	**2270**	ug/L	10.0	1	07/21/16 11:15	07/22/16 11:14	7440-39-3	
Cadmium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:14	7440-43-9	
Chromium	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:14	7440-47-3	
Lead	ND	ug/L	5.0	1	07/21/16 11:15	07/22/16 11:14	7439-92-1	
Selenium	ND	ug/L	15.0	1	07/21/16 11:15	07/22/16 11:14	7782-49-2	
Silver	ND	ug/L	7.0	1	07/21/16 11:15	07/22/16 11:14	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	07/25/16 09:40	07/25/16 13:57	7439-97-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**3090**	ug/L	50.0	50		07/22/16 14:27	71-43-2	
Ethylbenzene	**25.7**	ug/L	1.0	1		07/20/16 14:29	100-41-4	
Toluene	**5120**	ug/L	50.0	50		07/22/16 14:27	108-88-3	
Xylene (Total)	**6440**	ug/L	150	50		07/22/16 14:27	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98	%	77-130	1		07/20/16 14:29	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-127	1		07/20/16 14:29	17060-07-0	
Toluene-d8 (S)	101	%	80-120	1		07/20/16 14:29	2037-26-5	
Preservation pH	**1.0**		0.10	1		07/20/16 14:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**6.8**	Std. Units	0.10	1		07/20/16 12:45		H6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 342803
QC Batch Method: EPA 8015 Alcohol-Glycol
Associated Lab Samples: 60223765001

Analysis Method: EPA 8015 Alcohol-Glycol
Analysis Description: EPA 8015 Modified

METHOD BLANK: 1587707
Associated Lab Samples: 60223765001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethanol	mg/L	ND	5.0	07/20/16 11:49	

LABORATORY CONTROL SAMPLE: 1587708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethanol	mg/L	50	46.2	92	70-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1587709 1587710

Parameter	Units	60223575001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethanol	mg/L	ND	50	50	32.0	38.9	64	78	61-143	19	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 439735
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 60223765001

METHOD BLANK: 1799381
Matrix: Water
Associated Lab Samples: 60223765001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	07/25/16 12:21	

LABORATORY CONTROL SAMPLE: 1799382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1799383 1799384

Parameter	Units	60223593001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.61	5	5	5.0	5.0	88	88	75-125	0	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 439438
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 60223765001

METHOD BLANK: 1797181
Matrix: Water
Associated Lab Samples: 60223765001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	07/22/16 11:08	
Barium	ug/L	ND	10.0	07/22/16 11:08	
Cadmium	ug/L	ND	5.0	07/22/16 11:08	
Chromium	ug/L	ND	5.0	07/22/16 11:08	
Lead	ug/L	ND	5.0	07/22/16 11:08	
Selenium	ug/L	ND	15.0	07/22/16 11:08	
Silver	ug/L	ND	7.0	07/22/16 11:08	

LABORATORY CONTROL SAMPLE: 1797182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1080	108	80-120	
Barium	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	1120	112	80-120	
Chromium	ug/L	1000	961	96	80-120	
Lead	ug/L	1000	1110	111	80-120	
Selenium	ug/L	1000	1100	110	80-120	
Silver	ug/L	500	496	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1797183 1797184

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1110	1120	110	111	75-125	1	20	
Barium	ug/L	2260	1000	1000	3210	3240	96	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Chromium	ug/L	ND	1000	1000	926	930	93	93	75-125	0	20	
Lead	ug/L	ND	1000	1000	1030	1030	103	103	75-125	0	20	
Selenium	ug/L	ND	1000	1000	1120	1130	112	113	75-125	1	20	
Silver	ug/L	ND	500	500	503	504	101	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 426351
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6(10 MET
Associated Lab Samples: 60223765001

METHOD BLANK: 2321335
Matrix: Water
Associated Lab Samples: 60223765001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfur	ug/L	ND	500	07/22/16 19:58	

LABORATORY CONTROL SAMPLE: 2321336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfur	ug/L	20000	20000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2321337 2321338

Parameter	Units	60223766001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfur	ug/L	5310	20000	20000	25400	26700	101	107	75-125	5	20	

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QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 439301
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223765001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1796709
Associated Lab Samples: 60223765001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	ND	1.0	07/20/16 09:09	
1,2-Dichloroethane-d4 (S)	%	96	81-127	07/20/16 09:09	
4-Bromofluorobenzene (S)	%	97	77-130	07/20/16 09:09	
Toluene-d8 (S)	%	99	80-120	07/20/16 09:09	

LABORATORY CONTROL SAMPLE: 1796710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylbenzene	ug/L	20	21.0	105	80-120	
1,2-Dichloroethane-d4 (S)	%			99	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1796711 1796712

Parameter	Units	60223758002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethylbenzene	ug/L	ND	20	20	22.1	22.2	110	111	29-151	0	45	
1,2-Dichloroethane-d4 (S)	%						98	95	81-127			
4-Bromofluorobenzene (S)	%						96	96	77-130			
Toluene-d8 (S)	%						98	100	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: SAC-N-FOX
Pace Project No.: 60223765

QC Batch: 439616
QC Batch Method: EPA 5030B/8260
Associated Lab Samples: 60223765001

Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge

METHOD BLANK: 1798182
Associated Lab Samples: 60223765001

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	07/22/16 12:30	
Toluene	ug/L	ND	1.0	07/22/16 12:30	
Xylene (Total)	ug/L	ND	3.0	07/22/16 12:30	
1,2-Dichloroethane-d4 (S)	%	100	81-127	07/22/16 12:30	
4-Bromofluorobenzene (S)	%	99	77-130	07/22/16 12:30	
Toluene-d8 (S)	%	100	80-120	07/22/16 12:30	

LABORATORY CONTROL SAMPLE: 1798183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.9	100	79-116	
Toluene	ug/L	20	19.1	95	80-120	
Xylene (Total)	ug/L	60	58.4	97	80-120	
1,2-Dichloroethane-d4 (S)	%			101	81-127	
4-Bromofluorobenzene (S)	%			98	77-130	
Toluene-d8 (S)	%			100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: SAC-N-FOX
Pace Project No.: 60223765

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis
PASI-K	Pace Analytical Services - Kansas City
PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: 439616

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA required holding time.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SAC-N-FOX
Pace Project No.: 60223765

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60223765001	F3-GW	EPA 8015 Alcohol-Glycol	342803		
60223765001	F3-GW	EPA 3010	426351	EPA 6010	426659
60223765001	F3-GW	EPA 3010	439438	EPA 6010	439538
60223765001	F3-GW	EPA 7470	439735	EPA 7470	439802
60223765001	F3-GW	EPA 5030B/8260	439301		
60223765001	F3-GW	EPA 5030B/8260	439616		
60223765001	F3-GW	SM 4500-H+B	439244		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60223765

60223765

Client Name: Total Petroleum

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☒

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☒ Seals intact: Yes ☐ No ☒

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.1 T-256 / CF -0.1 T-239 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 19.2

Temperature should be above freezing to 6°C

Date and initials of person examining contents: JB 7/11

Chain of Custody present:	☒Yes	☐No	☐N/A	1. Out of temp
Chain of Custody filled out:	☒Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☒Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☒Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☒Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☒Yes	☐No	☐N/A	6. pH
Rush Turn Around Time requested:	☐Yes	☒No	☐N/A	7.
Sufficient volume:	☒Yes	☐No	☐N/A	8.
Correct containers used:	☒Yes	☐No	☐N/A	
Pace containers used:	☒Yes	☐No	☐N/A	9.
Containers intact:	☒Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes	☐No	☒N/A	12.
Sample labels match COC:	☒Yes	☐No	☐N/A	
Includes date/time/ID/analyses Matrix: WT				13.
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	14
Exceptions: (VOA) Coliform, O&G, WI-DRO (water)	☒Yes	☐No		Initial when completed / Lot # of added preservative
Trip Blank present:	☒Yes	☐No	☐N/A	
Pace Trip Blank lot # (if purchased): 7/15				15.
Headspace in VOA vials (>6mm):	☐Yes	☒No	☐N/A	
				16.
Project sampled in USDA Regulated Area:	☐Yes	☐No	☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes	☐No	☒N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Robert T Date/Time: 7.19.16

Comments/ Resolution: Report extracted & Footnote temp issue

Project Manager Review: _____ Date: 7.19.16

F-KS-C-003-Rev.9, 30June2015

Pace Analytical

CHAIN-OF-[illegible] Document

The Chain-of-Custody is a [illegible] All [illegible] fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Total Petroleum Services	Report To:	Robert Trump	Attention:	TPS LLC
Address:	16801 W. 132nd Circle	Copy To:		Company Name:	
	Olathe, KS 66062			Address:	SAME AS Client
Email:	robertltrump@gmail.com	Purchase Order #:		Pace Quote:	
Phone:	(913)481-5985 Fax:	Project Name:	SAC-ND-FEA	Pace Project Manager:	sherri.rosenstangle@pacelabs.com,
Requested Due Date:	7-23-16	Project #:	15110	Pace Profile #:	~~5841.5~~ 5841.2

Regulatory Agency

State / Location: KS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX	RCRA Metals	pH	Ethanol	Sulfur	Residual Chlorine (Y/N)	
1	F3-GW [illegible]	WT	G	7-1-16	430p				2														X			600223965
2	"	"	"	"	"				1												X					
3	"	"	"	"	"				2				X							X						
4	"	"	"	"	"				3				X						X							
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Tim Smith	7-15-16	1710	[signature]	7/15	1710	19.2	Y	N	Y

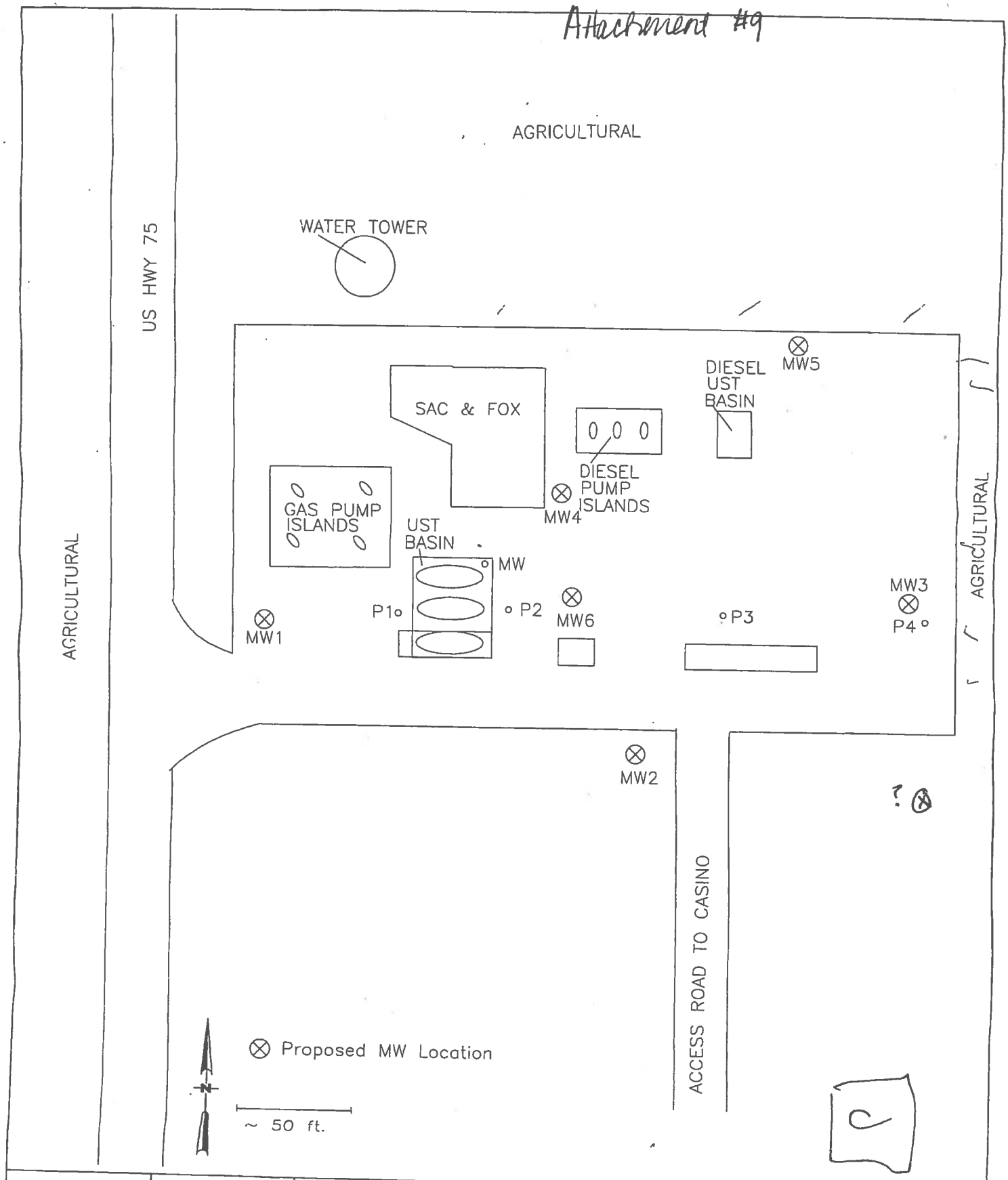
SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Timothy Smith

SIGNATURE of SAMPLER: [signature] DATE Signed: 7-15-16

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Attachement #9



PROJ.# 17102679	PAGE#
SCALE: AS SHOWN	DRAWN BY:
FILE NO.	DESIGNED BY:
DATE:	APPROVED BY:

FIGURE 3
PROPOSED MONITROING WELL LOCATIONS

SAC & FOX TRUCK STOP
1346 US 75 HIGHWAY
POWHATTEN, KANSAS

Douglas E Drouare, CPG
USEPA, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

August 20, 2015
Revised June 21, 2016

RE: Leaking Underground Storage Tank
Sac & Fox Truck Stop
1346 US Hwy 75
Powhattan, Kansas 66527

Dear Mr. Drouare,

Sac and Fox Truckstop was built in 1998 by M.A.C. Corporation, Independence MO. Robert Andrew who is still currently with M.A.C. was involved at the time of construction. Four fuel tanks were installed at that time. Documentation (Attachment 1) show that the tanks were XERXES double wall tanks with a 30 Year warranty.

Here is a timeline of events and actions taken regarding the ruptured fuel tank at Sac and Fox Truck Stop. (Attachment 2) is a diagram of the Truck Stop and where tanks set on the property for reference.

- July 20, 2015 Phone call from staff stating tank alarm was going off at approximately 9:30 p.m. Amanda responded by having them ck fuel levels and the North tank was below alarm level and needed fuel to siphon from the South tank. A few minutes later staff calls back and says alarm is still going off, Amanda then has them check water levels. At this time we now have a vehicle in the parking lot that will not stay running. Immediately all pumps are shut off at approximately 9:35p.m. Any car fueling with midgrade fuel during that 5 minute period would not run. Police, fire, emergency management and all other personnel needed responded. Parking lot was evacuated for everyones safety until we could assess the situation. We knew water was coming from somewhere but had no idea where from. Spent lots of time trying to determine water source. Our tank monitoring print out showed no water in the fuel at the beginning of the day.

- July 22, 2015 Robert Trump with Adler Tank Rentals, brought a Frac tank and pumped approximately 19,000 gallons of fuel and water into the Frac tank. At this time we could tell tank was ruptured and the probe was stuck in the ground from the pressure and that ground water was the responsible water source. At this time fuel needs to separate from water for 2-3 days to determine how much fuel was recovered. Then samples need to be sent for testing.

- July 24, 2015 Robert Trump with Adler returns to take samples of fuel and water for testing. We also determine that on July 20, 2015 Midgrade tank totals were

5,882.00 gallons, we sold 2185.11 gallons of midgrade fuel and that 2357.00 gallons of midgrade fuel was in the Frac tank, (Attachment 3) leaving 1339.89 gallons of midgrade fuel unaccounted for. Water and fuel samples are taken to Pace Analytical.

- July 27, 2015 Results of fuel and water samples come back from Pace Analytical. (Attachment 4)

- Fuel can be recovered but need to determine who will recover fuel from Frac tank and how to properly handle the contaminated water. Activated carbon vs. reclaim facility.

- July 27, 2015 Tankology Inc. comes to scope tanks and determine possible cause and damage. North midgrade tank is ruptured and south midgrade has a crack on top where vent pipe had been run over recently. South and north tanks are manifolded. Appears water pressure from excessive ground water caused pea gravel to erode, allowing tank to rupture.

- August 6, 2015 Estimates come from Robert Trump with Adler to determine procedure of disposing of contaminated water.

- August 11, 2015 Tribal Council approved to have midgrade fuel recovered from Frac tank by HAAG oil and to have contaminated water hauled to a reclaim facility.

- August 18, 2015 2000 gallons of fuel is recovered from Frac tank and blended with 1250 gallons of premium fuel to make fuel the correct octane level. (Attachment 5)

- August 19, 2015 Adler hauls contaminated water to reclaiming facility (Attachment 6). Also delivers a 300 gallon bladder for the ongoing process of reclaiming fuel from ruptured tank. Waiting on estimate to purchase a diaphragm pump and a compressor.

- At this time we know that there is still fuel in the ground because we have stuck the tank. Our thought is that it is in overfill tanks and that we will recover most of the missing fuel.

- Ongoing, will now start to pump bi-weekly out of ground to recover any fuel missing. Will store in bladder, let fuel separate from water and keep track of all product recovered each time. This procedure could take up to 12 months or until we can no longer recover any more fuel. After a period of time when there is no more recovery of product we will need to have soil tested.

- At this time we are possibly considering properly abandoning the North ruptured tank which is no longer in use.

- August 27, 2015 Ethan with PEI capped off manifold to south tank so we could start operating north tank. Reclaimed 442 gallons of fuel. (tank reading) (Attachment 7)

- August 28, 2015 Josh with PEI flushed fuel lines and recovered 150 gallons of fuel. Remaining gallons of fuel unaccounted for now totaling 746 gallons.

- Estimate received 9-21-2015 from Total Petroleum Services for Consultant, Geologist and site characterization. Waiting for Tribal Councils approval to continue with clean up/compliance efforts and free product recovery.

- Ace North American Claims is insurance covering remediation only. Contact Brian Hong 866-635-5698.

- Sac and Fox Truck Stop has been operational since incident on 7-20-2015 excluding the use of the ruptured North midgrade tank.

- November 19, 2015 Geologist take analytical samples for testing and drill for 4 Temporary Piezometers. Robert Trump from Total Petroleum Services, Robert Andrew from M.A.C. Corporation who installed the tanks, Ethan Kappler with P.E.I. and Mark Junker with Tribal EPA were all here. Appears contamination is within the Truck Stop property. Ruptured tank video was viewed by all, video shows a rupture approximately one third of the way up on east side approximately 7-8 inches in diameter. I was to receive test results in 10-12 days.

- January 18, 2016 have not received any results from analytical testing or piezometers. Still no response from Robert Andrew on Xerxes warranty.

- February 16, 2016 Received Site Investigation Report of general soil characteristics of the subsurface and initial impacts to the soil and groundwater due to failing gasoline underground storage tank. Terranext also provided cost to install 5 permanent monitoring wells, collect groundwater samples, complete an initial conceptual site model (CSM), screen and model groundwater data to determine soil vapor inhalation risk at Sac and Fox Truckstop. (Attachment 8)

- February 29, 2016 Meeting onsite at Sac and Fox Truckstop to discuss next steps and overall plan to continue with finalization of remediation and repair or abandonment of ruptured fuel tank. In attendance were Randy Dolifka PEI, William Millard Crawford and Company, Robert Trump Total Petroleum Services, Chris Kinn Geologist, Robert Andrews MAC Corp., Lisa Montgomery Sac and Fox EPA, Gary Bahr Sac and Fox Tribal Council, Theresa Armbruster Sac and Fox Truck Stop Manager, Amanda Kramer Sac and Fox Asst. Manager and VIA phone Anita Ketola ACE Insurance. It was unanimous by all in

attendance that the only way to determine the cause of the ruptured fuel tank would be to investigate the site. After determining the cause, being impact or defect then the decision will be made to either repair the existing Xerxes double wall tank with a 30 year warranty which was installed in 1998 and have it recertified or properly abandon the tank which would be the safest option and install a new tank in a new site. While the tank site is open we will be prepared to deal with free product, define plume and install wells. Initially 5 wells were suggested but was determined 2 would be sufficient. All work pending estimates and approval from Insurance Companies.

- March 21, 2016 Received estimate to repair ruptured fuel tank.
- April 20, 2016 Robert Trump Total Petroleum Services responds to Region 7.
- April 22, 2016 Insurance needing a breakdown of proposed estimate and an estimate for a replacement tank from M.A.C. Corp.
- May 11, 2016 Currently waiting for Estimates to install new tank if that determination is made immediately following the excavation of the northern area of the tank exposing the ruptured tank.
- May 17, 2016 Received estimate from Randy Dolifka PEI for new tank not sure of status on estimate from Robert Andrew MAC Corp.
- May 20, 2016 Received revised estimate from M.A.C. Corp.
- May 25, 2016 Tribal Council approved the excavation work proposed by M.A.C. Corp. Need to contact Robert Andrew to confirm a start date.
- June 8, 2016 Robert Andrew, M.A.C. Corp. still trying to coordinate with XERXES.
- June 16, 2016 M.A.C. Corp has a start date July 11, 2016 need to confirm with all involved.
- June 20, 2016 Confirmed with M.A.C. Corp. Everyone would be available for July 11, 2016 start date.
- June 21, 2016 contacted Robert Trump about providing Region 7 with an acceptable form of reporting.
- July 10, 2016 Robert Trump with Total Petroleum comes to start removing water to prepare for excavation on July 11, 2016 only to discover excessive amounts of water. Three FRAC tanks were needed for 60,000 plus gallons of contaminated water.

- July 11, 2016 Robert Andrew M.A.C. Corp starts preparing for excavation but due to large amounts of rain and excessive rain in the forecast suggests we delay all work. Rescheduled for week of July 26, 2016.

- July 15, 2016 Analytical results from water in three FRAC tanks are available. (Attachment #8)

- July 26, 2016 Week of. Partially expose ruptured fuel tank on East end enough to see that it IS NOT a red XERXES fuel tank. The tank is white and it is a Containment Solutions tank. All work is once again postponed. Prior to all of this Xerxes nor Containment Solutions had any records of tanks at our Truck Stop. Once we provided Containment Solutions with Serial numbers then they acknowledge us having those tanks.

- August 15, 2016 Week of. Completion of exposing ruptured fuel tank finally happens with everyone required in attendance. Robert Andrew M.A.C. Corp, Knudeson Construction sub contractor for M.A.C., Kyle Minden Central Region Engineering Manager, William Millard Crawford and Company, Matthew Cansen ACE/CHUBB, Gary Bahr Sac and Fox Tribal Council, Total Petroleum to assist with continued water removal and two Field Service Technicians from Containment Solutions. Containment Solutions technicians prepared and opened the east end of the ruptured fuel tank. On the SE side of the tank was approximately a five foot section of the fiberglass tank that had pulled away from the frame laying on top of the gravel underneath the rupture. At this time it was determined by Containment Solutions Field Service Techs that the tank WAS NOT Repairable. Time Line to receive a new fuel tank 4 months.

- September 6, 2016 Geologist installs 8 monitoring wells. Attachment showing well locations on the property. Geologist will return for sampling week of September 19, 2016. Sampling report expected by the first week of October 2016. (Attachment #9)

- September 1, 2016 Tribal Council decides we are no longer waiting on Insurance Companies to decide who is covering what, that we have been more than cooperative with their demands which have caused this situation to accrue a lot of unnecessary cost that they now want to fight over who is responsible for paying.

- September 6, 2016 Total Petroleum starts hauling off contaminated water from FRAC tanks to reclaim facility. Takes until September 12, 2016 to complete. Recovered free product from FRAC tank #1 was 5 inches. Recovered free product from FRAC tank #2 was 1 inch. Nothing was recovered from FRAC tank #3. The recovered free product should cover the 746 gallons of product not accounted for prior to this date.

- September 19, 2016 Scheduled conference call with Sac and Fox EPA, Region 7 and Theresa Armbruster to go over this information and to update.

Sincerely,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

Drouare, Douglas

From: Drouare, Douglas
Sent: Tuesday, September 27, 2016 7:25 AM
To: 'M.Junker'; 'Sac & Fox Truck Stop'; Lisa Montgomery
Subject: Sac & Fox Truck Stop LUST Situation

Categories: EZ Record - Shared

All,

Here is some contact information for Tom Schruben. Tom led the ASTM effort to develop forensic standards for failed tank systems. He might be helpful.

http://schruben.com/

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: M.Junker [mailto:mark.junker@sacfoxenviro.org]
Sent: Monday, September 19, 2016 2:06 PM
To: Drouare, Douglas <drouare.douglas@epa.gov>
Cc: Bustos, Patrick <Bustos.Patrick@epa.gov>; Hayes, Scott <Hayes.Scott@epa.gov>; Bosch, Raymond <Bosch.Raymond@epa.gov>; Lisa Montgomery <lisa.montgomery@sacfoxenviro.org>
Subject: RE: Follow Up to Discussion this Morning

Thanks Doug,

Patrick Lisa and I discussed increased USEPA visibility when we toured the site during our RTOC and I shot off a quick email to you about that same time.
We were all very frustrated with the delays we had been experiencing and what we perceived as stall tactics.
Later when we learned the insurance company expressed to Theresa that their obligation might cease due to the time it took to expose the tank we assumed some of these delays may have been manufactured.

We see no down side to your increased participation. It helps us and the other entities better understand the mindset of EPA. Carolyn Hoskinson echoed that when I spoke to her in August at the Tribal Lands Forum.
Additionally, I think it helps us moving forward with not only this issue but with other concerns unique to tanks in Indian Country.

We were also interested in determining just how and why the tank failed. I had a chance to speak with Robin Davis who worked the State of Utah and has done vapor intrusion work for USEPA and she suggested we might be able to get someone interested in doing a study of our tank. We have at least three different theories floating around and I see major flaws in all of them. Do you know of anyone in the EPA Tank universe who might be interested in trying to help us find an answer?

It was really nice being able to have you, Patrick, Raymond and Scott on the line with us and it will be great seeing this project regain a sense of direction moving forward.

From: Drouare, Douglas [mailto:drouare.douglas@epa.gov]
Sent: Monday, September 19, 2016 1:10 PM
To: Sac & Fox Truck Stop; lisa.montgomery@sacfoxenviro.org; mark.junker@sacfoxenviro.org
Cc: Bosch, Raymond; Hayes, Scott; Bustos, Patrick
Subject: Follow Up to Discussion this Morning

After our phone call this morning we continued to discuss the situation at the truck stop and how we could have a beneficial influence. We were wondering if it would be helpful for us to become a participant in the conversations between the parties involved. Perhaps if we participated in your next conference call, or if you scheduled a conference call that we could participate in, the mere weight of our presence may move parties to quicker action. We would not want to be the "lead" entity in the conversation or the sole reason for having the conversation. We would think that you would be the lead and we would be present to listen and comment where appropriate. Perhaps if the mere weight of our presence does not work select comments may. We would think that such a conversation would at least include you, your consultant, the tank manufacturer and your insurance company. What are your thoughts?

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

Drouare, Douglas

From: Barolo, Mark
Sent: Friday, September 23, 2016 7:18 AM
To: Drouare, Douglas; Rosado-Chaparro, Wilfredo
Cc: Hoskinson, Carolyn
Subject: RE: Insurance Guide

Categories: EZ Record - Shared

Hi Doug,

I felt like the more we talked about it the more we thought it would be unlikely that Containment Solutions would engage casually on the case, given the possibility of litigation. That said, here is the contact information we have. If you ever feel the time is right to call Ron, feel free.

Thanks,
Mark

Containment Solutions
Ron Shaffer
rshaffer@csiproducts.com
936/756-7731

From: Drouare, Douglas
Sent: Thursday, September 22, 2016 2:01 PM
To: Rosado-Chaparro, Wilfredo <Rosado-Chaparro.Wilfredo@epa.gov>; Barolo, Mark <Barolo.Mark@epa.gov>
Cc: Hoskinson, Carolyn <Hoskinson.Carolyn@epa.gov>
Subject: RE: Insurance Guide

Just a quick follow up question...

Did I hear someone was or was not going to reach out to Containment Solutions?

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: Rosado-Chaparro, Wilfredo
Sent: Thursday, September 22, 2016 12:46 PM
To: Barolo, Mark <Barolo.Mark@epa.gov>; Drouare, Douglas <drouare.douglas@epa.gov>
Cc: Hoskinson, Carolyn <Hoskinson.Carolyn@epa.gov>
Subject: RE: Insurance Guide

Thanks Mark!

Wilfredo Rosado-Chaparro, aka Wilo
Chief of the Enforcement, Inspection, & Compliance Section (EICS)
Chemical and Oil Release Prevention Branch (CORP), AWMD

U.S. E.P.A., Region 7
11201 Renner Boulevard
Lenexa, KS 66219
Tel. 913-551-7944, Cel. 816-225-3089, Fax. 913-551-9944
rosado-chaparro.wilfredo@epa.gov

"La razón no grita, la razón convence." Luis A. Ferré

From: Barolo, Mark
Sent: Thursday, September 22, 2016 12:44 PM
To: Rosado-Chaparro, Wilfredo <Rosado-Chaparro.Wilfredo@epa.gov>; Drouare, Douglas <drouare.douglas@epa.gov>
Cc: Hoskinson, Carolyn <Hoskinson.Carolyn@epa.gov>
Subject: Insurance Guide

FYI - here is the link to the insurance guide for UST owners we mentioned. Jill Hall spearheaded this issue for ASTSWMO.

Feel free to share with others if you think it could be helpful.

Mark

http://astswmo.org/files/policies/Tanks/2011.10_Guide_to_Tank_Insurance_FINAL.pdf

Sent from my iPhone

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Article Number: #######

Draft

Mr. Edmore Green, Chairperson
Sac & Fox Nation
305 North Main Street
Reserve, Kansas 66434

RE: RESPONSE REQUIRED
LEAKING UNDERGROUND STORAGE TANK SITE
SAC & FOX TRUCK STOP
1346 US HIGHWAY 75
POWHATTAN, KANSAS 66527

Dear Chairperson Green:

The Sac & Fox Nation is the responsible party of record for the leaking underground storage tank site noted above. We are now approaching a year since the release was reported to our office. Limited information regarding the responsible party's actions to address the release of petroleum has been provide to us. Given the age of this release, the information provided is inadequate and our attempts to gather the necessary information from current responsible party contacts have proven unsuccessful. In addition, reported plans for further action are inadequate.

Under 40 CFR, Part 280.64 you are required to recover free product to the maximum extent practicable. Under 40 CFR, parts 280.65 you are required to determine the full extent and location of contamination. You are required to provide us the following with 30 calendar days of receipt of this letter:

Free Product Recovery Report/Work Plan – A complete accounting of the type of product lost, volume of product lost, product recovered, dates of product recovered, method of recovery, method of storage/disposal, plans and schedule for future free product recovery efforts, reporting schedule and all other requirements under 40 CFR, Part 280.64.

Site Investigation Work Plan – A technical work plan describing the proposed scope of work for investigating the full extent of contaminants released to the environment, in all lateral directions from the point of release, to its full depth, for all potentially impacted media (soil, groundwater, surface water, air, etc. – as applicable to site specific conditions) and all other requirements under 40 CFR, Part 280.65. The scope of proposed work described in previous communications by the responsible party is deemed inadequate.

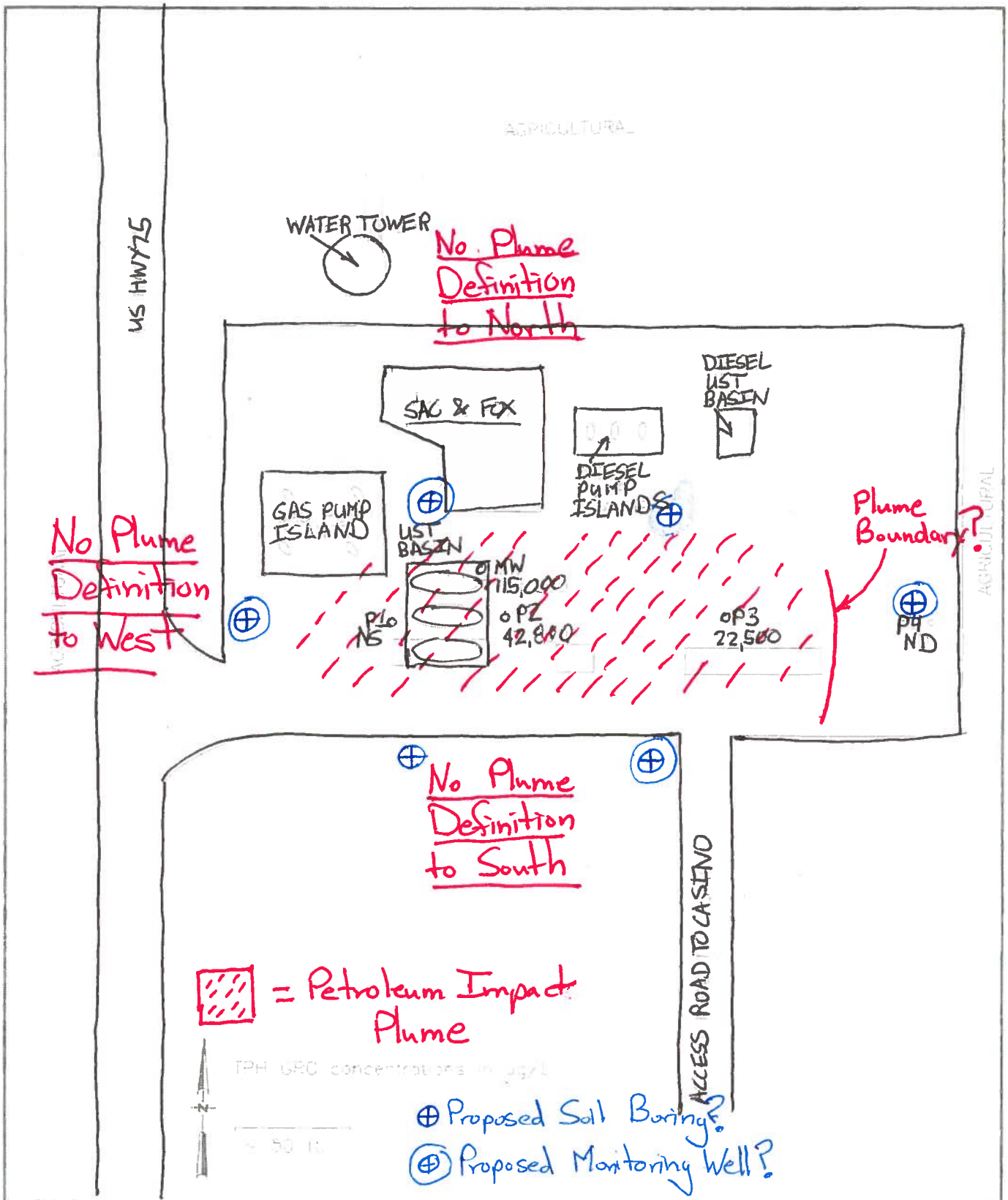
Failure to adequately respond will result in the consideration of this situation for enforcement action. If you have any questions, please contact us.

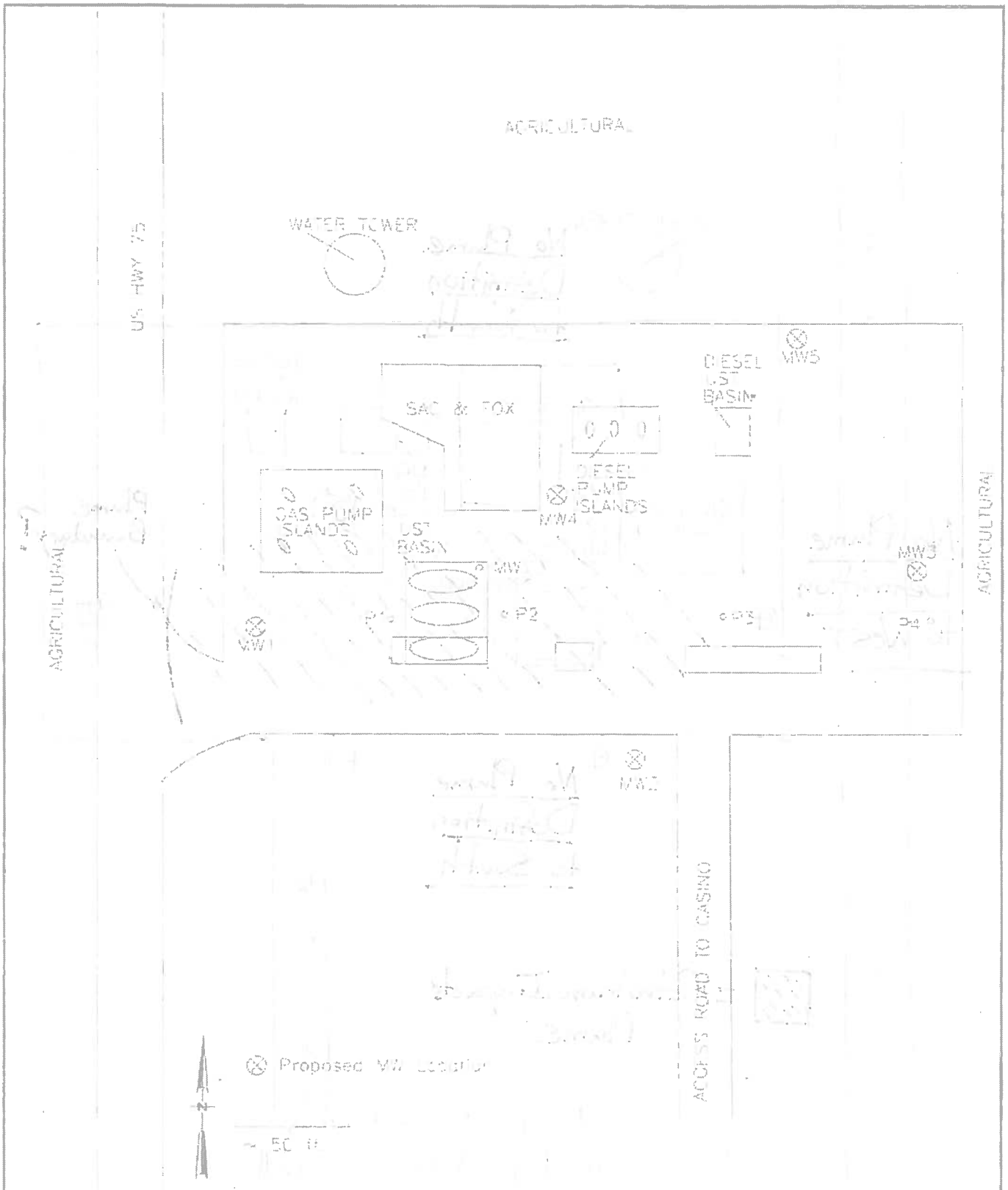
Sincerely,

Scott D. Hayes, Branch Chief
Chemical & Oil Release Prevention
(913) 551-7670
hayes.scott@epa.gov

Douglas E. Drouare, CPG
Chemical & Oil Release Prevention
(913) 551-7299
drouare.dougla@epa.gov

pc: Tanks Section Chief, Kansas Department of Health and Environment
Ms. Lisa Montgomery, Sac & Fox Nation
Mr. Mark Junker, Sac & Fox Nation
Ms. Theresa Armbruster, Sac & Fox Truck Stop


US HWY 75
WATER TOWER
No Plume Definition to North
SAC & FOX
DIESEL UST BASIN
DIESEL PUMP ISLANDS
GAS PUMP ISLAND
UST BASIN
No Plume Definition to West
MW 115,000
PZ 42,800
P10 ND
P3 22,500
P4 ND
Plume Boundary?
No Plume Definition to South
ACCESS ROAD TO CASINO
= Petroleum Impact Plume
TPH GRO concentrations in µg/L
Proposed Soil Boring?
Proposed Monitoring Well?
PROJ.# 17102679
PAGE#
SCALE: AS SHOWN
DRAWN BY:
FILE NO
DESIGNED BY:
DATE:
APPROVED BY:
FIGURE 2
TPH GRO
SAC & FOX TRUCK STOP
1346 US 75 HIGHWAY
POWHATTEN, KANSAS



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FILE NO	DESIGNED BY:
DATE:	APPROVED BY:

FIGURE 3
PROPOSED MONITROING WELL LOCATIONS

SAC & FOX TRUCK STOP
1346 US 75 HIGHWAY
POWHATTEN, KANSAS

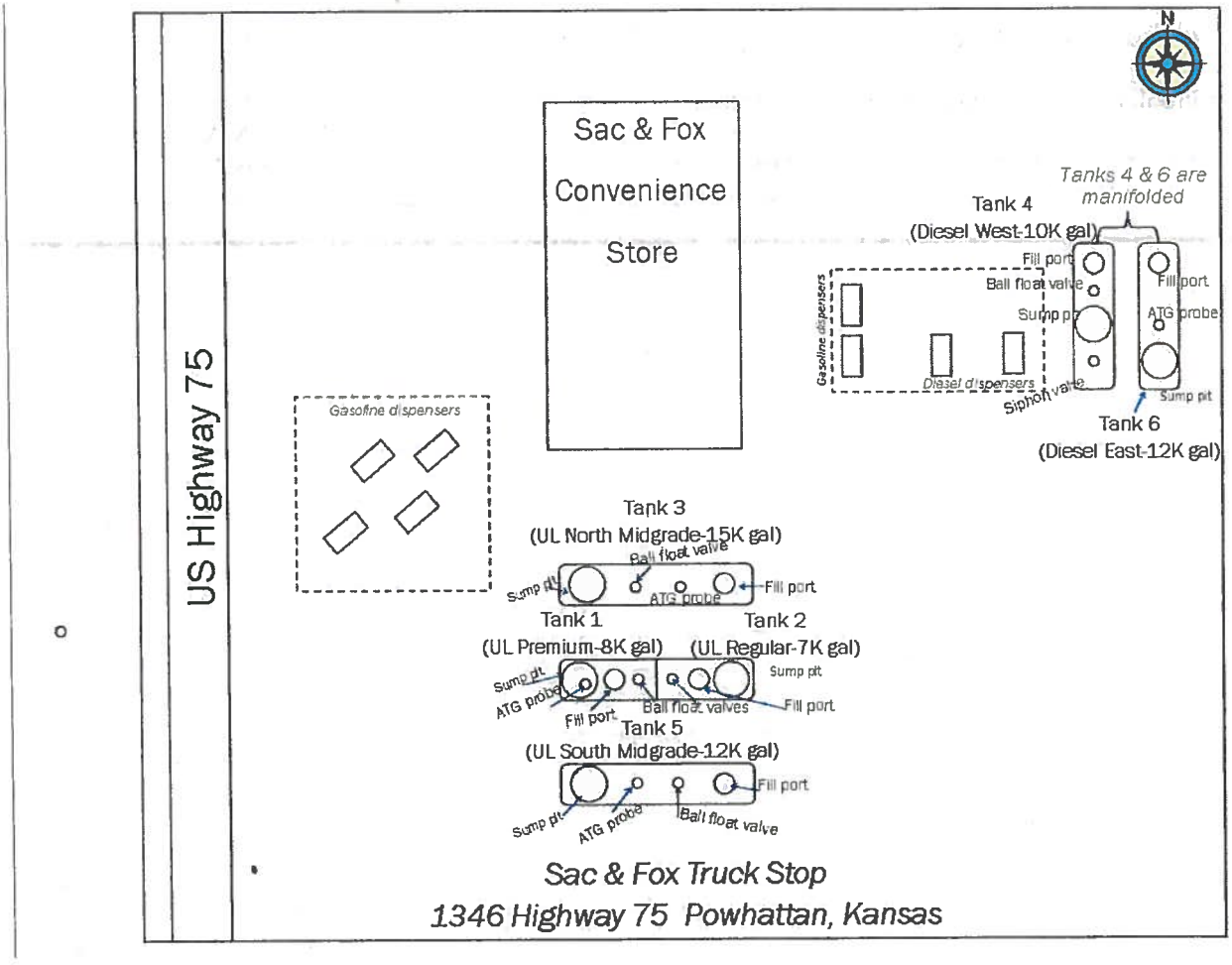
∞ SITE DRAWING ∞

Date: 26 September 2013 **Time on Site:** 12:00pm **Time off Site:** 2:24pm

Weather: Sunny

ENVIRONMENTALLY SENSITIVE AREA: Yes **No**

If "Yes" please describe:



CP Testing: YES **NO** Sacrificial Impressed

Location of tank contact:

half cell:

Measured Vlt at Tank:

Pipe:

Pictures (see attached) **Yes** No

Initial/Date _____

Drouare, Douglas

From: Hayes, Scott
Sent: Monday, July 11, 2016 1:26 PM
To: Bustos, Patrick
Cc: Drouare, Douglas; Bosch, Raymond
Subject: FW: Sac & Fox Truck Stop LUST
Attachments: Draft Sac & Fox Reg Letter 07_11_2016.doc

Patrick,

We are have some problems getting the Sac & Fox to be responsive regarding investigation and cleanup of a release they had last year. Attached is a letter we would like to send. Let me know if you have any suggestions.

From: Drouare, Douglas
Sent: Monday, July 11, 2016 10:04 AM
To: Hayes, Scott <Hayes.Scott@epa.gov>; Bosch, Raymond <Bosch.Raymond@epa.gov>
Subject: Sac & Fox Truck Stop LUST

My recommendation for a next step. See attached. Let me know if I should start this down the concurrence path and any other thoughts you have.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

Drouare, Douglas

From: Sac & Fox Truck Stop <sacfoxtsmgr@jbntelco.com>
Sent: Friday, June 24, 2016 5:30 PM
To: Drouare, Douglas; egreen@sacandfoxcasino.com; lisamontgomery@sacfoxenviro.org; mark.junker@sacfoxenviro.org
Subject: RE: Truck Stop Reports
Attachments: 201606241714.pdf

Categories: EZ Record - Shared, Record Saved - Shared

Doug,

I apologize that you are not satisfied with the timely manner in which you are receiving information. When you were seeking information from other parties involved I assumed you were getting the information you wanted. When Robert Trump responded
I assumed you got information you were after. Then you requested a conference call which we were all more than happy to do so that we could all be on the same page, you then were not available for the scheduled call time. Then you sent a 300 page report as a reference of what you were wanting on a spill that was 20 years ongoing which I could never convert and did get from Mark Junker. I have called and left you several messages but am unaware of any call backs. As Mark Junker stated in the email accompanying the report and findings, due to capabilities of computers I had been unable to send you all of this information. For this I am apologetic. I have no problem with sharing information, I believe we are trying to do everything to the best of our ability to resolve this unfortunate situation and we have nothing to hide.
Currently we are not recovering any free product at the advise of Robert Trump, hired to help guide us thru this situation properly. As stated on the February 29, 2016 bullet, While tank site is open we would be prepared to deal with free product and define plume. Tank site will be exposed on July 11, 2016 Robert Trump will be on site to handle the situation. Once analysis is received from the data gathered it will be determined from supportive documentation if more than two wells are needed. Geologist findings showed that spill was contained within Truck Stop property and that there is nothing that has adverse effect on health or environment. Which is why we have waited for insurance approval to move forward. Had geologist found tremendous amounts of contamination that determined urgent, then the situation may have been handled differently. After July 11, 2016 data is received we will start to finalize the remediation process.
On July 20, 2015 A.M. tank reading reported 5882 gallons of fuel, 2185 gallons of fuel had been sold by the time the pumps were shut down leaving 3697 gallons of fuel unaccounted for, 2357 gallons were recovered in the frac tank (July 24, 2015 bullet), Ethan recovers 442 gallons (August 27, 2015 bullet) Josh recovers 150 gallons (August 28, 2016 bullet). Total of 2949 gallons recovered of 3697 gallons leaving 748 gallons unaccounted for. Will need to correct bullet dated August 28, 2016 stating 746 gallons.
The only work plan I have at this time was part of attachment 8 sent with report on June 22, 2016. I have attached it in case you did not get all of it.
The fact that you are unsatisfied with the time schedule of dealing with this situation is unfortunate. I am dependant upon a lot of other peoples advise and professionalism to determine how to properly deal with this situation. It has been made very clear that we need to do what is necessary to resolve this unfortunate circumstance cost effectively. Now that you have the bulk of the information, keeping you up to date should be much easier. If this information is still not adequate please let me know.

Sincerely,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

From: Drouare, Douglas [mailto:drouare.douglas@epa.gov]
Sent: Friday, June 24, 2016 11:19 AM
To: mark.junker@sacfoxenviro.org; Sac & Fox Truck Stop; lisa.montgomery@sacfoxenviro.org
Cc: Hayes, Scott
Subject: RE: Truck Stop Reports

Good morning Mark,

The January 22, 2016 Site Investigation Report is the type of technical report we were and are expecting for this project. It was helpful in describing the current status of the project. We are wondering why it took five months to get to us.

Considering this release is near to being a year old, we consider progress toward fully evaluating the extent and degree of impact to be behind schedule. Further efforts and communications are going to need to be completed in a more timely manner.

We have the following questions...

What is being done to recover free product?

How much free product has been recovered to date?

How does this compare to the volume of fuel released?

Where is the work plan/proposal for investigation services that will be necessary to fully evaluate the degree and extent of the contaminant plume? We are skeptical that two wells will be adequate to do this as indicated in the attached notes. Perhaps the work plan/proposal is one of the documents that could not be sent by e-mail??? If so, please mail it to us ASAP so that we can review and comment.

As previously stated, we consider this project to be behind schedule. Future efforts and communications are going to need to be completed in a more timely manner.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: M.Junker [mailto:mark.junker@sacfoxenviro.org]
Sent: Wednesday, June 22, 2016 12:07 PM
To: Drouare, Douglas <drouare.douglas@epa.gov>
Cc: Edmore Green <egreen@sacandfoxcasino.com>; Robert L. Trump <rtrump@totalpetroleumservices.com>; 'Sac & Fox Truck Stop' <sacfoxtsmgr@jbntelco.com>
Subject: Truck Stop Reports

Good afternoon Doug,
Due to the capabilities of the computers in my office I am forwarding to you the report that Theresa Armbruster created to reflect the most current information we have on our tank situation as well as time line reflecting the activity undertaken to characterize and remediate the site.

There are the three attachments included. The first is her report which sites nine different attachments. Due to formatting issues only one is included. It is the one labeled attachment 9. The second attachment include items 1-8. The 3rd attachment contains the bulk of the site characterization.

The documentation represents the most thorough compilation of all data we capable of providing at this time.

You are more than welcome to come visit us at the Truck Stop on July 11, 2016 when we will begin excavating the tank and formulating some plans for completing the data gathering process and remediation.

Mark Junker

Tribal Response Coordinator
Sac & Fox Nation Of Missouri in Kansas and Nebraska
(785) 742-4706

8

TERRANEXT
11904 Grandview Road Grandview, Missouri 64030
Telephone: 913 894-4000 www.terranext.net

February 16, 2016

Mr. Robert Trump
Total Petroleum Services
16601 W. 132nd Circle
Olathe, Kansas 66062

RE: Conceptual Site Model (CSM) / Soil Vapor Screening & Modeling / Monitoring Well Installation / Groundwater Sampling Costs
Sac & Fox Truck Stop
1346 US 75 Highway
Powhatten, Kansas

Dear Mr. Trump:

Terranext is pleased to provide costs to install 5 permanent monitoring wells, collect groundwater samples, complete an initial conceptual site model (CSM), screen and model groundwater data to determine soil vapor inhalation risk at the Sac & Fox Truck Stop site in Powhatten, Kansas.

Objectives

The objective of the installation of 5 monitoring wells and associated groundwater sampling is to delineate groundwater impacts at the site and to determine the magnitude of the impacts. The objective of the CSM is to provide a description of relevant site features and the surface and subsurface conditions to understand potential migration pathways and potential receptors of chemicals of concern (COC) and the risk they pose to receptors. The objective of the groundwater screening and modeling is to determine if there is a soil vapor inhalation risk to receptors at the site.

Monitoring Well Installation and Groundwater Sampling

Terranext and drilling subcontractor RAZEK Environmental will install 5 monitoring wells whose proposed locations are shown in Figure 1. The wells will be completed in accordance to the Kansas Department of Health and Environment (KDHE) standards and based on the initial site investigation should determine the extent and magnitude of the impacted groundwater due to the failed underground storage tank (UST). Terranext will field screen the soil to determine the extent of impact but, unless requested, will not collect soil samples for laboratory analysis to determine the magnitude of any impact as contamination migration is primarily through groundwater and not the soil. Terranext will utilize KDHE s Tier 2 non-residential risk-based screening values when comparing groundwater impacts to cleanup criteria and to determine any necessary action. Additional wells may be necessary if, in the field, the perimeter monitoring well locations show impacts by field screening and observation as the perimeter monitoring wells cannot be impacted if one is delineate the extent of impact. The monitoring wells will also be able to be used for future groundwater monitoring

? ? decided not necessary per estimate 28,129.00 from meeting Sap THIS WILL NOW CHANGE only need 1 or 2 more wells

Conceptual Site Model (CSM)
Terranext will prepare an initial conceptual site model. The CSM will represent the site and area of concern, contaminant sources, the environmental media that have been impacted, and the processes that determine transport of contaminants to potential receptors. The CSM will include, but not be limited to:

- Site characteristics
- Potential receptors
- Potential exposure pathways
- Land use survey
- Water well survey
- Exposure risks

The conceptual site model is an iterative tool that should be developed and refined as information is obtained throughout the site investigation and any remediation activities.

Soil Vapor Screening & Modeling
Terranext will use groundwater data and site characteristic information to screen and model soil vapor risk due to COCs utilizing the EPA on-line Johnson & Ettinger (J&E) calculator and EPA's Risk-Based Screening Generic Table for Commercial Air. Terranext will use the standard cancer risk value of 1E-06 and a hazard quotient value of 1 to determine risk and any necessary action.

Terranext appreciates the opportunity to work with TPS on this project and if you have any questions or require additional information, please call me at (913) 894-4000.

Sincerely,

TERRANEXT, LLC

Christopher Kinn, PG
Director, Midwest Operations

Drouare, Douglas

From: Drouare, Douglas
Sent: Friday, July 08, 2016 8:35 AM
To: 'Sac & Fox Truck Stop'; 'M.Junker'; lisa.montgomery@sacfoxenviro.org
Cc: Wilfredo Rosado-Chaparro; Pomes, Michael; Hayes, Scott
Subject: RE: Truck Stop Reports

Thank you for the update. I am forwarding your message to those at our agency whose focus is on the UST systems (Wilfredo & Michael). My focus is on the release of petroleum that has occurred and the investigation and corrective action that must follow. We are in the process of drafting a formal response to your latest electronic mail.

Douglas E. Drouare, CPG
USEPA, Region 7, AWMD - STOP
11201 Renner Boulevard
Lenexa, Kansas 66219
(913) 551-7299
drouare.douglas@epa.gov

From: Sac & Fox Truck Stop [mailto:sacfoxtsmgr@jbntelco.com]
Sent: Thursday, July 07, 2016 5:34 PM
To: Drouare, Douglas <drouare.douglas@epa.gov>
Subject: RE: Truck Stop Reports

Doug,

Just a reminder Sac and Fox Truck Stop ruptured tank excavation will begin Monday July 11, 2016.

Thank You,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

From: Drouare, Douglas [mailto:drouare.douglas@epa.gov]
Sent: Friday, June 24, 2016 11:19 AM
To: mark.junker@sacfoxenviro.org; Sac & Fox Truck Stop; lisa.montgomery@sacfoxenviro.org
Cc: Hayes, Scott
Subject: RE: Truck Stop Reports

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Mark Junker
Tribal Response Coordinator
Sac & Fox Nation Of Missouri in Kansas and Nebraska
(785) 742-4706

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Tribal Response Coordinator
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(785) 742-4706

Drouare, Douglas

From: M.Junker <mark.junker@sacfoxenviro.org>
Sent: Wednesday, June 22, 2016 12:07 PM
To: Drouare, Douglas
Cc: Edmore Green; Robert L. Trump; 'Sac & Fox Truck Stop'
Subject: Truck Stop Reports
Attachments: removed.txt; TankReport_Jun22_2016.docx; TankReportAttachments_Jun22_2016.pdf; Complete 2015 Site Investigation Report.pdf

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Tribal Response Coordinator
Sac & Fox Nation Of Missouri in Kansas and Nebraska
(785) 742-4706

Douglas E Drouare, CPG
USEPA, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

August 20, 2015
Revised June 22, 2016

RE: Leaking Underground Storage Tank
Sac & Fox Truck Stop
1346 US Hwy 75
Powhattan, Kansas 66527

Dear Mr. Drouare,

Sac and Fox Truck Stop was built in 1998 by M.A.C. Corporation, Independence MO. Robert Andrew who is still currently with M.A.C. was involved at the time of construction. Four fuel tanks were installed at that time. Documentation (Attachment 1) show that the tanks were XERXES double wall tanks with a 30 Year warranty.

Here is a timeline of events and actions taken regarding the ruptured fuel tank at Sac and Fox Truck Stop. (Attachment 2) is a diagram of the Truck Stop and where tanks set on the property for reference.

- July 20, 2015 Phone call from staff stating tank alarm was going off at approximately 9:30 p.m. Amanda responded by having them check fuel levels and the north tank was below alarm level and needed fuel to siphon from the South tank. A few minutes later staff calls back and says alarm is still going off, Amanda then has them check water levels. At this time we now have a vehicle in the parking lot that will not stay running. Immediately all pumps are shut off at approximately 9:35p.m. Any car fueling with midgrade fuel during that 5 minute period would not run. Police, fire, emergency management and all other personnel needed responded. Parking lot was evacuated for everyone's safety until we could assess the situation. We knew water was coming from somewhere but had no idea where from. On site personnel spent about an hour trying to determine water source. Our tank monitoring print out showed no water in the fuel at the beginning of the day.

- July 22, 2015 Robert Trump with Adler Tank Rentals, brought a Frac tank and pumped approximately 19,000 gallons of fuel and water into the Frac tank. At this time we could tell tank was ruptured and the probe was stuck in the ground from the pressure and that ground water was the responsible water source. At this time fuel needs to separate from water for 2-3 days to determine how much fuel was recovered. Then samples need to be sent for testing.

- July 24, 2015 Robert Trump with Adler returns to take samples of fuel and water for testing. We also determine that on July 20, 2015 Midgrade tank totals were

5,882.00 gallons, we sold 2185.11 gallons of midgrade fuel and that 2357.00 gallons of midgrade fuel was in the Frac tank, (Attachment 3) leaving 1339.89 gallons of midgrade fuel unaccounted for. Water and fuel samples are taken to Pace Analytical.

- July 27, 2015 Results of fuel and water samples come back from Pace Analytical. (Attachment 4)

- Fuel can be recovered but need to determine who will recover fuel from Frac tank and how to properly handle the contaminated water. Activated carbon vs. reclaim facility.

- July 27, 2015 Tankology Inc. comes to scope tanks and determine possible cause and damage. North midgrade tank is ruptured and south midgrade has a crack on top where vent pipe had been run over recently. South and north tanks are manifolded. Appears water pressure from excessive ground water caused pea gravel to erode, allowing tank to rupture.

- August 6, 2015 Estimates come from Robert Trump with Adler to determine procedure of disposing of contaminated water.

- August 11, 2015 Tribal Council approved to have midgrade fuel recovered from Frac tank by HAAG oil and to have contaminated water hauled to a reclaim facility.

- August 18, 2015 2000 gallons of fuel is recovered from frac tank and blended with 1250 gallons of premium fuel to make fuel the correct octane level. (Attachment 5)

- August 19, 2015 Adler hauls contaminated water to reclaiming facility (Attachment 6). Also delivers a 300 gallon bladder for the ongoing process of reclaiming fuel from ruptured tank. Waiting on estimate to purchase a diaphragm pump and a compressor.

- At this time we know that there is still fuel in the ground because we have stuck the tank. Our thought is that it is in overfill tanks and that we will recover most of the missing fuel.

- Ongoing, will now start to pump bi-weekly out of ground to recover any fuel missing. Will store in bladder, let fuel separate from water and keep track of all product recovered each time. This procedure could take up to 12 months or until we can no longer recover any more fuel. After a period of time when there is no more recovery of product we will need to have soil tested.

- At this time we are possibly considering properly abandoning the North ruptured tank which is no longer in use.

- August 27, 2015 Ethan with PEI capped off manifold to south tank so we could start operating north tank. Reclaimed 442 gallons of fuel. (tank reading) (Attachment 7)

- August 28, 2015 Josh with PEI flushed fuel lines and recovered 150 gallons of fuel. Remaining gallons of fuel unaccounted for now totaling 746 gallons.

- Estimate received 9-21-2015 from Total Petroleum Services for Consultant, Geologist and site characterization. Waiting for Tribal Councils approval to continue with clean up/compliance efforts and free product recovery.

- Ace North American Claims is insurance covering remediation only. Contact Brian Hong 866-635-5698.

- Sac and Fox Truck Stop has been operational since incident on 7-20-2015 excluding the use of the ruptured north midgrade tank.

- November 19, 2015 Geologist take analytical samples for testing and drill for 4 Temporary Piezometers. Robert Trump from Total Petroleum Services, Robert Andrew from M.A.C. Corporation who installed the tanks, Ethan Kappler with P.E.I. and Mark Junker with Tribal EPA were all here. Appears contamination is within the Truck Stop property. Ruptured tank video was viewed by all, video shows a rupture approximately one third of the way up on north side approximately 7-8 inches in diameter. I was to receive test results in 10-12 days.

- January 18, 2016 have not received any results from analytical testing or piezometers. Still no response from Robert Andrew on Xerxes warranty.

- February 16, 2016 Received Site Investigation Report of general soil characteristics of the subsurface and initial impacts to the soil and groundwater due to failing gasoline underground storage tank. Terranext also provided cost to install 5 permanent monitoring wells, collect groundwater samples, complete an initial conceptual site model (CSM), screen and model groundwater data to determine soil vapor inhalation risk at Sac and Fox Truckstop. (Attachment 8)

- February 29, 2016 Meeting onsite at Sac and Fox Truckstop to discuss next steps and overall plan to continue with finalization of remediation and repair or abandonment of ruptured fuel tank. In attendance were Randy Dolifka PEI, William Millard Crawford and Company, Robert Trump Total Petroleum Services, Chris Kinn Geologist, Robert Andrews MAC Corp., Lisa Montgomery Sac and Fox EPA, Gary Bahr Sac and Fox Tribal Council, Theresa Armbruster Sac and Fox Truck Stop Manager, Amanda Kramer Sac and Fox Asst. Manager and VIA phone Anita Ketola ACE Insurance. It was unanimous by all in

attendance that the only way to determine the cause of the ruptured fuel tank would be to investigate the site. After determining the cause, being impact or defect then the decision will be made to either repair the existing Xerses double wall tank with a 30 year warranty which was installed in 1998 and have it recertified or properly abandon the tank which would be the safest option and install a new tank in a new site. While the tank site is open we will be prepared to deal with free product, define plume and install wells. Initially 5 wells were suggested but was determined 2 would be sufficient. All work pending estimates and approval from Insurance Companies.

- March 21, 2016 Received estimate to repair ruptured fuel tank.
- April 20, 2016 Robert Trump Total Petroleum Services responds to Region 7.(Attachment 9)
- April 22, 2016 Insurance needing a breakdown of proposed estimate and an estimate for a replacement tank from M.A.C. Corp.
- May 11, 2016 Currently waiting for Estimates to install new tank if that determination is made immediately following the excavation of the northern area of the tank exposing the ruptured tank.
- May 17, 2016 Received estimate from Randy Dolifka PEI for new tank not sure of status on estimate from Robert Andrew MAC Corp.
- May 20, 2016 Received revised estimate from M.A.C. Corp.
- May 25, 2016 Tribal Council approved the excavation work proposed by M.A.C. Corp. Need to contact Robert Andrew to confirm a start date.
- June 8, 2016 Robert Andrew, M.A.C. Corp. still trying to coordinate with XERXES.
- June 16, 2016 M.A.C. Corp has a start date July 11, 2016 need to confirm with all involved.
- June 20, 2016 Confirmed with M.A.C. Corp. Everyone would be available for July 11, 2016 start date.
- June 21, 2016 contacted Robert Trump about providing Region 7 with an acceptable form of reporting.

Sincerely,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

Attachments 1-8a are attached separately
Attachment 8b is attached separately
Attachment 9

Sac & Fox Truck Stop

From: Robert L. Trump [rtrump@totalpetroleumservices.com]
Sent: Wednesday, April 20, 2016 8:24 AM
To: Drouere, Douglas; mark.junker@sacfoxenviro.org; Sac & Fox Truck Stop; L.Montgomery
Cc: Randy Carlson; Scott O'Neal; mmeenan@kdheks.gov; Hayes, Scott; Bosch, Raymond; koorus tahghighi@amec.com; cklinn@terranext.net
Subject: RE: Leaking Underground Storage Tank Site - Sac & Fox Truck Stop

Good morning,

Robert Trump, Total Petroleum Services LLC responding. We were contracted to remove free product and contaminated waters from the LUST in question.

Since then we have performed exploratory work with temporary peizometers to ascertain the geology of the subsurface and gain insight into the outer boundaries of contamination.

In March a meeting with Sac & Fox, Total Petroleum, Representatives from insuring parties, our contracted geologist Terranext, and the original installer MAC was held to form a concesus between the parties for the next steps.

At that time MAC put forward a work plan to excavate the Northern area of the tank so a representative from Xerxes, tank manufacturer, could make a determination regarding cause of breach and possible repair of tank.

Total Petroleum advanced a work plan to support the excavation activities with a Vac system to remove any additional free product and/or ground water during excavation and inspection and/or repairs.

Total Petroleum/Terranext also advanced a work plan for soil vapor monitoring and installation of permanent monitoring wells for extended ground water sampling.

To date: Antea Group has approved Total Petroleums work plan on behalf of Ace-Chub insurers and we have received an approval letter from Chub this week.

We were contacted last Friday by AMEC Environmental who we learned has now been retained by Crawford Group to also review all plans to determine if they are reasonable. A conference call was held Monday between AMEC, Total Petroleum Services, and Terranext, to explain our work plan for remedial activities.

As of today, we have not received this approval from AMEC/Crawford to move forward.

We also do not know if MAC has submitted their work plan for tank inspection by excavation, flowable fill closure, or complete tank removal.

I will be out of the office until Friday. I am reachable by cell, text, or email to answer any questions you may have.

Sincerely,

I am in the process of revising and adding documention to back up information.

Douglas E Drouare, CPG
USEPA, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

August 20, 2015

RE: Leaking Underground Storage Tank
Sac & Fox Truck Stop
1346 US Hwy 75
Powhattan, Kansas 66527

Dear Mr. Drouare,

Here is a timeline of events and actions taken regarding the ruptured fuel tank at Sac and Fox Truck Stop. Attachment number 1 is a diagram of the Truck Stop and where tanks set on the property for reference.

- July 20, 2015 Phone call from staff stating tank alarm was going off at approximately 9:30 p.m. Amanda responded by having them ck fuel levels and the North tank was below alarm level and needed fuel to siphon from the South tank. A few minutes later staff calls back and says alarm is still going off, Amanda then has them check water levels. At this time we now have a vehicle in the parking lot that will not stay running. Immediately all pumps are shut off at approximately 9:35p.m. Any car fueling with midgrade fuel during that 5 minute period would not run. Police, fire, emergency management and all other personnel needed responded. Parking lot was evacuated for everyones safety until we could assess the situation. We knew water was coming from somewhere but had no idea where from. Spent lots of time trying to determine water source. Our tank monitoring print out showed no water in the fuel at the beginning of the day.

- July 22, 2015 Robert Trump with Adler Tank Rentals, brought a Frac tank and pumped approximately 19,000 gallons of fuel and water into the Frac tank. At this time we could tell tank was ruptured and the probe was stuck in the ground from the pressure and that ground water was the responsible water source. At this time fuel needs to separate from water for 2-3 days to determine how much fuel was recovered. Then samples need to be sent for testing.

- July 24, 2015 Robert Trump with Adler returns to take samples of fuel and water for testing. We also determine that on July 20, 2015 Midgrade tank totals were 5,882.00 gallons, we sold 2185.11 gallons of midgrade fuel and that 2357.00 gallons of midgrade fuel was in the Frac tank, leaving 1339.89 gallons of midgrade fuel unaccounted for. Water and fuel samples are taken to Pace Analytical.

- July 27, 2015 Results of fuel and water samples come back from Pace Analytical.

- Fuel can be recovered but need to determine who will recover fuel from Frac tank and how to properly handle the contaminated water. Activated carbon vs. reclaim facility.

- July 27, 2015 Tankology Inc. comes to scope tanks and determine possible cause and damage. See attached diagram labeled 2. North midgrade tank is ruptured and south midgrade has a crack on top where vent pipe had been run over recently. South and north tanks are manifolded. Appears water pressure from excessive ground water caused pea gravel to erode, allowing tank to rupture.

- August 6, 2015 Estimates come from Robert Trump with Adler to determine procedure of disposing of contaminated water.

- August 11, 2015 Tribal Council approved to have midgrade fuel recovered from Frac tank by HAAG oil and to have contaminated water hauled to a reclaim facility.

- August 18, 2015 2000 gallons of fuel is recovered from Frac tank and blended with 1250 gallons of premium fuel to make fuel the correct octane level.

- August 19, 2015 Adler hauls contaminated water to reclaiming facility. Also delivers a 300 gallon bladder for the ongoing process of reclaiming fuel from ruptured tank. Waiting on estimate to purchase a diaphragm pump and a compressor.

- At this time we know that there is still fuel in the ground because we have stuck the tank. Our thought is that it is in overfill tanks and that we will recover most of the missing fuel.

- Ongoing, will now start to pump bi-weekly out of ground to recover any fuel missing. Will store in bladder, let fuel separate from water and keep track of all product recovered each time. This procedure could take up to 12 months or until we can no longer recover any more fuel. After a period of time when there is no more recovery of product we will need to have soil tested.

- At this time we are possibly considering properly abandoning the North ruptured tank which is no longer in use.

Sincerely,

Theresa Armbruster
Sac and Fox Truck Stop Manager

Continuation

- August 27, 2015 Ethan with PEI capped off manifold to south tank so we could start operating north tank. Reclaimed 443 gallons of fuel. (tank reading)

- August 28, 2015 Josh with PEI flushed fuel lines and recovered 150 gallons of fuel. Remaining gallons of fuel unaccounted for now totaling 746 gallons.

- Estimate received 9-21-2015 from Total Petroleum Services for Consultant, Geologist and site characterization. Waiting for Tribal Councils approval to continue with clean up/compliance efforts and free product recovery.

- Ace North American Claims is insurance covering remediation only. Contact Brian Hong 866-635-5698.

- Sac and Fox Truck Stop has been operational since incident on 7-20-2015 excluding the use of the ruptured North midgrade tank.

- November 19, 2015 Geologist take analytical samples for testing and drill for 4 Temporary Piezometers. Robert Trump from Total Petroleum Services, Robert Andrew from M.A.C. Corporation who installed the tanks, Ethan Kappler with P.E.I. and Mark Junker with Tribal EPA were all here. Appears contamination is within the Truck Stop property. Ruptured tank video was viewed by all, video shows a rupture approximately one third of the way up on east side approximately 7-8 inches in diameter. I was to receive test results in 10-12 days.

- January 18, 2016 have not received any results from analytical testing or piezometers. Still no response from Robert Andrew on Xerxes warranty.

Updated 5-15-2016

- February 16, 2016 Received Site Investigation Report of general soil characteristics of the subsurface and initial impacts to the soil and groundwater due to failing gasoline underground storage tank. Terranext also provided cost to install 5 permanent monitoring wells, collect groundwater samples, complete an initial conceptual site model (CSM), screen and model groundwater data to determine soil vapor inhalation risk at Sac and Fox Truckstop.

- February 29, 2016 Meeting onsite at Sac and Fox Truckstop to discuss next steps and overall plan to continue with finalization of remediation and repair or abandonment of ruptured fuel tank. In attendance were Randy Dolifka PEI, William Millard Crawford and Company, Robert Trump Total Petroleum Services, Chris Kinn Geologist, Robert Andrews MAC Corp., Lisa Montgomery Sac and Fox EPA, Gary Bahr Sac and Fox Tribal Council, Theresa Armbruster

Sac and Fox Truck Stop Manager, Amanda Kramer Sac and Fox Asst. Manager and VIA phone Anita Ketola ACE Insurance. It was unanimous by all in attendance that the only way to determine the cause of the ruptured fuel tank would be to investigate the site. After determining the cause, being impact or defect then the decision will be made to either repair the existing Xerses double wall tank with a 30 year warranty which was installed and have it recertified or properly abandone the tank which would be the safest option and install a new tank in a new site. While the tank site is open we will be prepared to deal with free product, define plume and install wells. Initially 5 wells were suggested but was determined 2 would be sufficient. All work pending estimates and approval from Insurance Companies.

- May 11, 2016 Currently waiting for Estimates to install new tank if that determination is made immediately following the excavation of the northern area of the tank exposing the ruptured tank.

- May 17, 2016 Received estimate from Randy Dolifka PEI for new tank not sure of status on estimate from Robert Andrew MAC Corp.

Total Petroleum Services LLC

January 21, 2016

Ms. Theresa Armbruster
Sac & Fox Truck Stop
1346 US 75 Highway
Powhatten, KS

Dear Ms. Armbruster:

Per our conversation this week I have attached the invoice for work performed, the cost estimate for this invoice, and a complete Site Investigation Report prepared by our Geologist Mr. Christopher Kinn of Terra Next.

It is the opinion of Terra Next and Total Petroleum Services LLC that the level of contaminates above KDHE risk based levels do pose a risk and the source of the contamination, the tank, should be removed from the ground and any subsequent contaminated soil from within and surrounding the tank pit.

We recommend installing 5 ground water monitoring wells for the specific purpose of monitoring natural attenuation of contaminates remaining on this site.

It is recommended that sampling and analysis of the well which supplies water to the Tower adjacent to and North of the site be completed as a precautionary measure.

It is recommended that the original tank installer, MAC Corporation, be contacted and request a proposal to remove the tank in question along with any contaminated soils. Due to the close proximity of the tank in question to additional UST(s) it is recommended MAC Corporation bring in an expert in shoring to prevent any movement of existing UST(s) during excavation and back fill.

Total Petroleum Service LLC and its Geological firm will be on site during the tank removal and provide sampling of soils within the tank pit per KDHE recommended practice.

We are in the process of putting together our proposal to provide the necessary services as outlined above excluding the actual tank removal and soil disposal to be provided by MAC Corporation or others as Sac & Fox sees fit.

Thank you for your business and we look forward to working with you to complete this project.

Sincerely,

Robert L. Trump - President

Total Petroleum Services LLC
16601 W 132nd Circle
Olathe, KS 66062

Invoice

Date	Invoice #
1/21/2016	1466

Phone #	Fax #	Web	E-mail
913-461-5985	913-948-9532	www.totalpetroleumservices.com	rtrump@totalpetroleumservices.com

Bill To	Ship To
Sac & Fox Theresa Armbruster 1346 US 75 Powhattan, KS 66527	Sac & Fox Theresa Armbruster 1346 US 75 Powhattan, KS 66527

P.O. No.	Terms	Project
Theresa A.	Due on receipt	15110

Quantity	Description	Rate	Amount
1	Site Characterization per Cost Estimate dated 9/18/2015 attached	6,605.00	6,605.00

We appreciate your prompt payment.

Payments/Credits	$0.00
Balance Due	$6,605.00

Total Petroleum Services LLC

SITE CHARACTERIZATION COST ESTIMATE

Total Petroleum Services LLC - Project Team Leader
Terranext , LLC - Project Geologist
Project Name - Sac & Fox
Project Location - Powhattan, KS

Date: 9/18/2015

	Rate	Unit	Quantity	Cost
Site Characterization - Field Work				
Geologist	$75.00	Hour	14	$1,050.00
Pick-Up	$60.00	Day	1	$60.00
Water Level Meter	$20.00	Day	1	$20.00
Subsurface Drilling 4 Temporary Piezometers				
Drilling and Site Utility Locates	$3,300.00	Day	1	$3,300.00
Laboratory Analytical Testing				
Ground Water				
BTEX, Naph, Oxygenates	$125	Sample	5	$625.00
& TPH GRO (Method 8260B)	Standard Turnaround			
		Subsurface Investigation SUB TOTAL		$5,055.00
Site Characterization - Report/Project Management				
Project Manager	$250.00	Lump Sum	1	$250.00
Project Geologist	$1,300.00	Lump Sum	1	$1,300.00
		Report Preparation		$1,550.00

Sac & Fox Acceptance
Authorized Signature: _____
Date: _____

Subsurface Investigation	$5,055.00
Report Preparation	$1,550.00
Total Cost Estimate	**$6,605.00**

TERRANEXT
11904 Grandview Road Grandview, Missouri 64030
Telephone: 913 894-4000

January 6, 2016

Mr. Robert Trump
Total Petroleum Services
16601 W. 132nd Circle
Olathe, Kansas 66062

RE: Site Investigation Report
Sac & Fox Truck Stop
1346 US 75 Highway
Powhatten, Kansas

Dear Mr. Trump:

Terranext is pleased to provide this Site Investigation Report for the Sac & Fox Truck Stop site in Powhatten, Kansas.

Objectives

The objective of this investigation was to determine general soil characteristics of the subsurface and initial impacts to the soil and groundwater due to a failing gasoline underground storage tanks (UST) located on the property.

Site Investigation Activities

Site characterization activities included the advancement of four borings near the failed UST. Figure 1 (Attachment C) illustrates the site and the locations of the four probes, existing monitoring well and UST basin. Activities also included geologic logging and field screening of the subsurface at three of the probe locations and collection of ground water samples from three of the four probes (the probe, P1, was dry) and the existing monitoring well for laboratory analysis.

Terranext, along with drilling subcontractor PSA Environmental and Total Petroleum Services, LLC were on-site November 19, 2015. After review of the site, discussion of probing locations, calibration of the Photo Ionization Detector (PID) and a health and safety meeting, activities to investigate the site began.

General Subsurface Soil Conditions

Attachment A contains the geologic logs of the Probe locations P1-P4.

Probe P1 encountered fill gravel from the current UST basin down to 7 feet below ground surface (bgs); underlain by primarily clay to depth of 22.5 feet bgs. The clay did contain some silt and sand in the interval of 10- 12.5 feet bgs. A thin layer of silty sand was encountered from 22.5 feet bgs to refusal at 23 feet bgs.

Probe P2 encountered refusal at 20 feet bgs. No geologic logging or field screening was performed at the P2 location.

Probe P3 encountered primarily clay to depth of 17.5 feet bgs. The clay again contains some silt in the interval of 10.5 0-12 feet bgs. A thin layer of sand with silt was again encountered (17.5 – 19.5 feet bgs) just above refusal at 20 feet bgs.

Probe P4 encountered primarily clay to depth of 18.5 feet bgs. Beneath the clay was silt with some clay and sand from 18.5 feet bgs to the total depth of 24 feet bgs.

Based on the four probes, it appears the general geology is primarily clay with silty sand at depths below approximately 18 feet bgs. This lower silty sand zone is a preferential pathway from groundwater migration.

Soil Impacts

Terranext screened the soil at with a calibrated PID in the field. Table 1 (Attachment B) illustrates the results of the VOCs detected and the sample intervals and indicates the subsurface has been impacted at the P1, P3 and most likely P2 locations. Based on the PID readings, the subsurface does not appear to have been impacted at the P4 location.

Groundwater Impacts

Terranext collected groundwater samples for analysis from Probe locations P2, P3, P4 and the existing monitoring well on-site. P1 was dry and unable to be sampled. Table 2 (Attachment B) illustrates the analytical results. Samples from the existing monitoring well, P2 and P3 all show petroleum impact above Kansas Department of Health and Environment (KDHE) Risk-Based Standards (RSK) limits. Specific chemical of concerns TPH-GRO, benzene, toluene, ethylbenzene, xylenes, naphthalene, and tert-butyl-alcohol (TBA) are all above the respective RSK values. It appears the impact has not yet reached the P4 location. Figure 2 (Attachment C) illustrates the concentrations of TPH-GRO detected and the lab report is included as Attachment D.

Conclusions

Based on the advancement of 4 probes at the subject site and the analysis on groundwater samples collected from the probes, the soil and groundwater near and to the east (downslope) of the failed UST has been impacted by petroleum hydrocarbons. It appears the impacts have not yet reached the P4 location near the eastern property boundary.

Recommendations

Based on the results of this initial site investigation, Terranext recommends the following actions

- Remove the primary contamination source (the failed UST and surrounding impacted soils).
- Address groundwater impacts by natural attenuation and install 5 monitoring wells to monitor this natural degradation. Figure 3 (Attachment C) illustrates the location of the proposed monitoring well locations.
- During the site investigation, Terranext noticed a water tower adjacent to the north of the site. Terranext recommends laboratory testing for chemical of concerns from the well that provides water to the water tower.

Terranext appreciates the opportunity to work with TPS on this project and if you have any questions or require additional information, please call me at (913) 894-4000.

Sincerely,

TERRANEXT, LLC

Christopher Kinn, PG
Director, Midwest Operations

ATTACHMENT A

Geologic Logs

TerraNext

LOG OF BORING NO: P1

SHEET NUMBER 1 OF 1

PROJECT NAME	Sac & Fox Truck Stop	DRILLING / PROBING CONTRACTOR	PSA / Geoprobe 5400
PROJECT LOCATION	1346 US 75 Highway Powhattan, Kansas	DRILLING METHOD / BORE DIAMETER	Direct Push
		SAMPLING METHOD	Macro core
PROJECT NUMBER	17102879	TOTAL DEPTH (feet)	23
GEOLOGIST	Meredith Watson	START DATE	11/19/15
DRILLER	Robert Tieman	COMPLETION DATE	11/19/15
		GPS COORDINATES	

Water Level Data

Date	Time	Depth
11/19/15	Dry @	1245

Survey Data

Ground Surface:

Ground Water:

SAMPLE DEPTH AND TIME	PID (ppmv)	RECOVERY (FEET)	DEPTH (FEET)	WELL CONSTRUCTION	GEOLOGIC DESCRIPTION (NAME, color, particle size, characteristics)	NOTES:
1038	52.1	3/4	1 2 3 4		Concrete Surface Fill Gravel	3-4' slight odor
1041	1507	4/4	5 6 7 8		CH: medium, moist, mottled brn and gry, medium plastic CLAY, black staining	7-8' strong odor
1044	1621	4/4	9 10 11 12	Bentonite Seal	ML: medium, moist, mottled orange and grey, non-plastic, sandy (f) SILT ML: stiff, moist, grey, non-plastic, SILT, some sand (f)	10-11' strong odor
1051	264	4/4	13 14 15 16		CH: stiff, moist, brown, high plastic CLAY, TR limestone nodules	14-15' strong odor
1058	211	4/4	17 18 19 20		CH: stiff, moist, grey, high plastic CLAY with some gravel and interbedded white clay CH: v. stiff, moist, grey, high plastic CLAY	18-19' mod. odor
1107	697	4/4	21 22 23		SM: dense, moist, orange, silty m-f SAND Refusal @ 23ft	22-23' strong odor
1116			24 25			

LEGEND:

SS - Split Spoon
PID - Photoionization Detector
NR - No Recovery

- Concrete
- Flush Mount Vault
- Grout
- Bentonite Chip Seal
- Filter Pack
- Well Screen

ST - Shelby Tube
HSA - Hollow Stem Augers
PPMV - Parts Per Million by Volume

MPW

TerraNext

LOG OF BORING NO: P2

SHEET NUMBER 1 OF 1

PROJECT NAME	Sac & Fox Truck Stop
PROJECT LOCATION	1346 US 75 Highway Powhattan, Kansas
PROJECT NUMBER	17102679
GEOLOGIST	Meredith Watson
DRILLER	Robert Tieman
DRILLING / PROBING CONTRACTOR	PSA / Geoprobe 5400
DRILLING METHOD / BORE DIAMETER	Direct Push
SAMPLING METHOD	Macro core
TOTAL DEPTH (feet)	20
START DATE	11/19/15
COMPLETION DATE	11/19/15
GPS COORDINATES	

Water Level Data

Date	Time	Depth
11/19/15	1556	19.2'

Survey Data

Ground Surface:

Ground Water:

SAMPLE DEPTH AND TIME	PID (PPMV)	RECOVERY (FEET)	DEPTH (FEET)	WELL CONSTRUCTION	GEOLOGIC DESCRIPTION (NAME, color, particle size, characteristics)	NOTES
1300			1		Concrete Surface	
			2			Soils not logged
			3			Boring for only grab water sample
			4			
			5			
			6			
			7			
			8			
			9	Bentonite Seal		
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			
1350			21		Refusal @ 20 ft	
			22			
			23			
			24			
			25			

LEGEND:

SS - Split Spoon
PID - Photoionization Detector
NR - No Recovery

- Concrete
- Flush Mount Vault
- Grout
- Bentonite Chip Seal
- Filter Pack
- Well Screen

ST - Shelby Tube
HSA - Hollow Stem Augers
PPMV - Parts Per Million by Volume

MPL

TerraNext

LOG OF BORING NO: P3

SHEET NUMBER 1 OF 1

PROJECT NAME:	Sac & Fox Truck Stop
PROJECT LOCATION:	1346 US 75 Highway
	Powhattan, Kansas
PROJECT NUMBER:	17102679
GEOLOGIST:	Meredith Watson
DRILLER:	Roben Tieman
DRILLING / PROBING CONTRACTOR:	PSA / Geoprobe 5400
DRILLING METHOD / BORE DIAMETER:	Direct Push
SAMPLING METHOD:	Macro core
TOTAL DEPTH (feet):	24
START DATE:	11/19/15
COMPLETION DATE:	11/19/15
GPS COORDINATES:	

Water Level Data

Date	Time	Depth
11/19/15	1554	9.4'

Survey Data

Ground Surface:

Ground Water:

SAMPLE DEPTH AND TIME	PID (PPMV)	RECOVERY (FEET)	DEPTH (FEET)	WELL CONSTRUCTION	GEOLOGIC DESCRIPTION (NAME, color, particle size, characteristics)	NOTES
1412	0.0	4/4	1 2 3 4		Concrete Surface CL: medium stiff, moist, mottled brown and grey, low plastic, silty CLAY	3-4' no odor
1415	35.4	4/4	5 6 7 8	Bentonite Seal		6-7' no odor
1419	135	4/4	9 10 11 12		ML: soft, moist to wet, orange, med. plastic, clayey SILT	11-12' strong odor
1424	417	4/4	13 14 15 16		CH: stiff, moist, mottled brown and grey, high plastic CLAY CH: soft, wet, mottled brown and grey, high plastic CLAY	13-14' strong odor
1431	295	4/4	17 18 19 20		SM: medium dense, wet, orange, SAND, (m-f), with silt CH: stiff, moist, brown, high plastic CLAY	17-18' mod odor
1440			21 22 23 24		Refusal @ 20ft	
			25			

LEGEND:

SS - Split Spoon
PID - Photoionization Detector
NR - No Recovery

- Concrete
- Flush Mount Vault
- Grout
- Bentonite Chip Seal
- Filter Pack
- Well Screen

ST - Shelby Tube
HSA - Hollow Stem Augers
PPMV - Parts Per Million by Volume

APW

TerraNext

LOG OF BORING NO: TP4

SHEET NUMBER 1 OF 1

PROJECT NAME	Sac & Fox Truck Stop
PROJECT LOCATION	1346 US 75 Highway Powhattan, Kansas
PROJECT NUMBER	17102679
GEOLOGIST	Meredith Watson
DRILLER	Robert Tieman
DRILLING / PROBING CONTRACTOR	PSA / Geoprobe 5400
DRILLING METHOD / BORE DIAMETER	Direct Push
SAMPLING METHOD	Macro core
TOTAL DEPTH (feet)	24
START DATE	11/19/15
COMPLETION DATE	11/20/15
GPS COORDINATES	

Water Level Data

Date	Time	Depth
11/20/15	1028	11.2'

Survey Data

Ground Surface

Ground Water

SAMPLE DEPTH AND TIME	PID (PPMV)	RECOVERY (FEET)	DEPTH (FEET)	WELL CONSTRUCTION	GEOLOGIC DESCRIPTION (NAME, color, particle size, characteristics)	NOTES
1453	0.0	4/4	1	Bentonite seal	Grass. ~~Concrete~~ Surface	0-1' no odor
			2		CL: stiff, moist, dark brown, low plastic CLAY	
	0.0		3			2-3' no odor
			4		CL: stiff, moist, brown, low plastic, CLAY	
1457		4/4	5			
			6			
	0.0		7		CL: stiff, moist, grey, low plastic CLAY	6-7' no odor
			8			
1501		4/4	9			
			10		CH: stiff, moist, mottled brown and grey, high plastic, CLAY, Trace gravel, layers of white clay	
	0.0		11			11-12' no odor
			12			
1506		4/4	13			
	0.0		14			14-15' no odor
			15			
			16			
1512		4/4	17			
	0.0		18		ML: v. stiff, moist, brown, non-plastic, clayey SILT, some f. sand	18-19' no odor
			19			
			20			
1521		4/4	21			
	0.0		22		ML: v. stiff, wet, brown, non-plastic, sandy SILT, some clay	21-22' no odor
			23			
			24			
1530			25		TD @ 24'	

LEGEND:

SS - Split Spoon
PID - Photoionization Detector
NR - No Recovery

- Concrete
- Flush Mount Vault
- Grout
- Bentonite Chip Seal
- Filter Pack
- Well Screen

ST - Shelby Tube
HSA - Hollow Stem Augers
PPMV - Parts Per Million by Volume

MPW

ATTACHMENT B

Tables

TABLE 1
SOIL FIELD SCREENING RESULTS

Sac & Fox Truck Stop
1346 US 75 Highway
Powhatten, Kansas

PROBE ID	DATE MEASURED	SAMPLE INTERVAL (feet bgs)	FIELD SCREENING RESULT (ppmv)
P1	11/19/15	3-4	82.1
		7-8	1,507
		10-11	1,621
		14-15	264
		18-19	211
		22-23	697
P3	11/19/15	3-4	0.0
		6-7	35.4
		11-12	1,351
		13-14	417
		17-18	295
P4	11/20/15	0-1	0.0
		2-3	0.0
		6-7	0.00
		11-12	0.00
		14-15	0.00
		18-19	0.00
		21-22	0.00

NOTE:

Soil samples were collected from probes utilizing Geoprobe™ technology.

bgs - below ground surface
ppmv - parts per million by volume

TABLE 2- GROUND WATER ANALYTICAL RESULTS

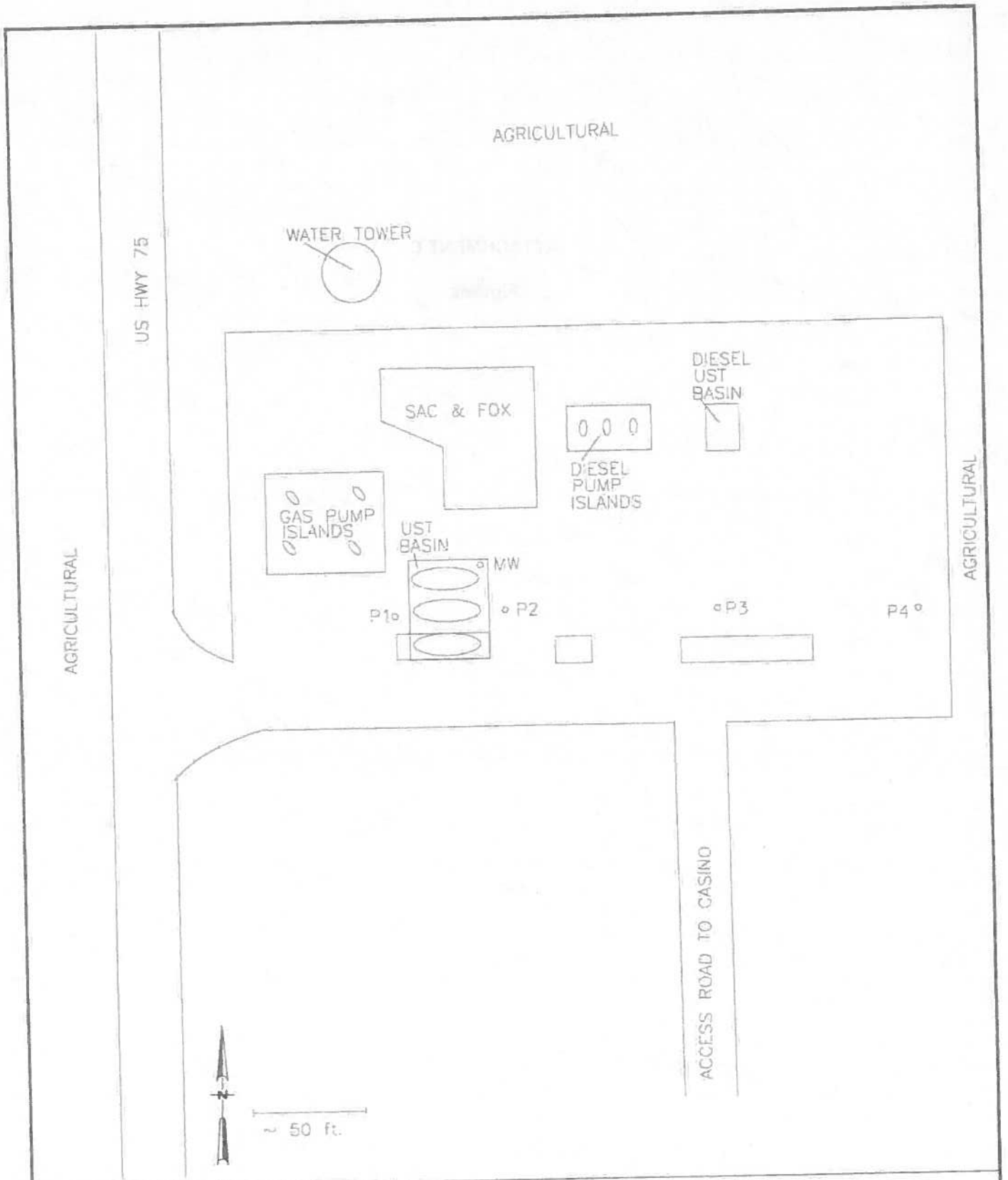
Sac & Fox Truck Stop
1346 US 75 Highway
Powhattan, Kansas

Well ID	Date Sampled	Static Water Level (ft bgs)	TPH GRO (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl benzene (µg/l)	Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MtBE (ug/l)	TERT-BUTYL ALCOHOL (TBA)	TERT-AMYLMETHYL ETHER (TAME)	DIISOPROPYL ETHER (DIPE)	ETHYL-TERT-BUTYL ETHER (ETBE)	Analytical Method
Tier 2 RSK Non-Residential			500	5	1,000	700	10,000	-	2.11	262	859	-	-	-	EPA 8260
GW-MW	11/19/2015	5.02	115,000	4,580	11,300	2,550	13,400	31,830	ND(1000)	ND(100)	2,750	ND(100)	ND(100)	ND(100)	
GW-P2	11/19/15	19.2	42,800	6,940	2,830	806	2,810	13,486	ND(500)	ND(50)	2,570	ND(50)	ND(50)	N(50)	
GW-P3	11/19/15	9.4	22,500	968	2,380	420	2,220	5,997	68.9	ND(1)	ND(10)	ND(1)	ND(1)	ND(1)	
GW-P4	11/20/15	11.2	ND(500)	ND(1)	ND(1)	ND(1)	ND(3)	ND	ND(10)	ND(1)	ND(10)	ND(1)	ND(1)	ND(1)	

Values in bold exceed non-Residential Tier 2 RSKs
RSK - Risk-Based Standard for Kansas (RSK) Value, August 2010

ATTACHMENT C

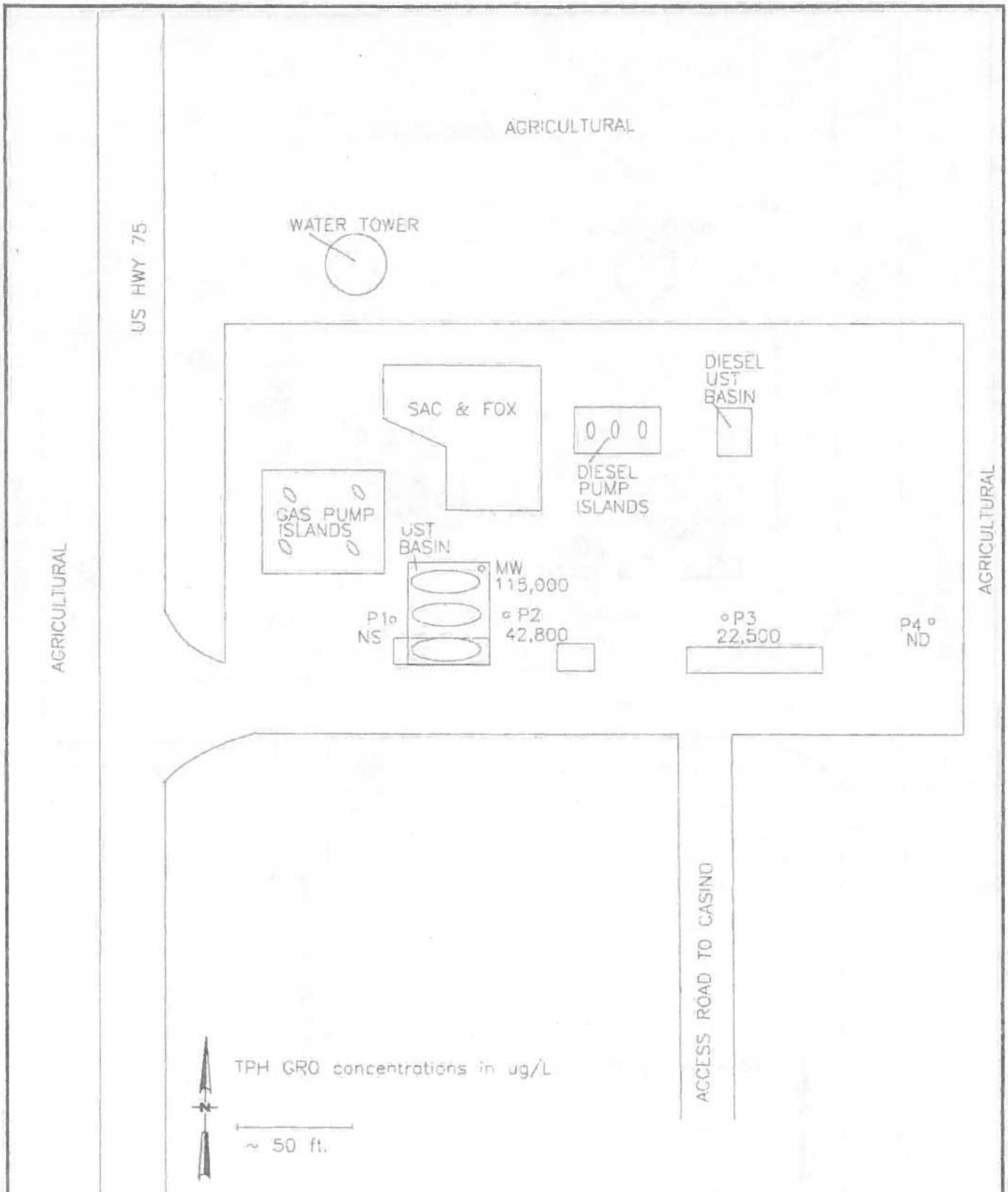
Figures



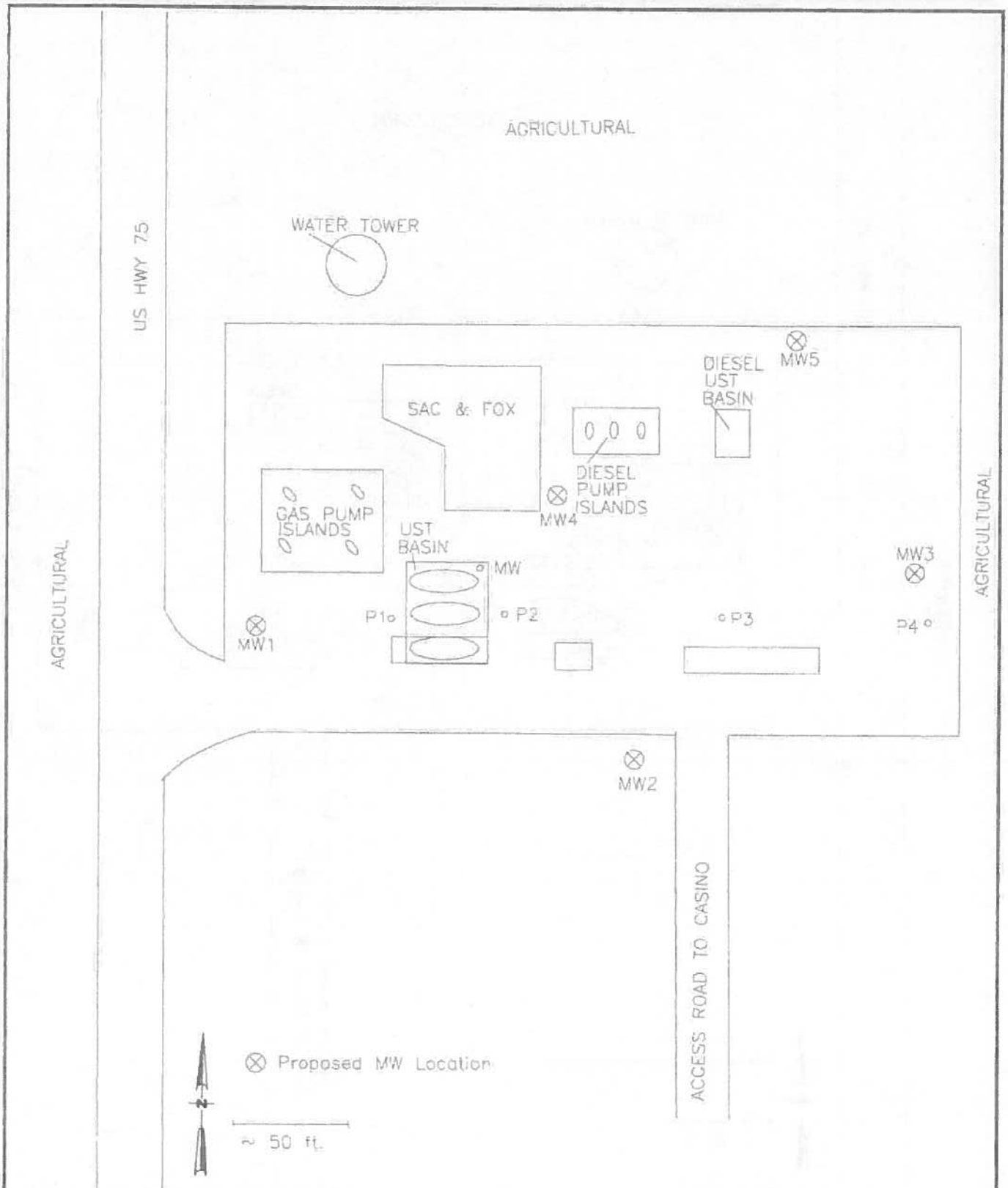
PROJ.# 17102679	PAGE#
SCALE: AS SHOWN	DRAWN BY:
FILE NO.	DESIGNED BY:
DATE:	APPROVED BY:

FIGURE 1
SITE MAP

SAC & FOX TRUCK STOP
1346 US 75 HIGHWAY
POWHATTEN, KANSAS



PROJ.# 17102679	PAGE#		FIGURE 2 TPH GRO SAC & FOX TRUCK STOP 1346 US 75 HIGHWAY POWHATTEN, KANSAS
SCALE: AS SHOWN	DRAWN BY:		
FILE NO.	DESIGNED BY:		
DATE:	APPROVED BY:		



PROJ.# 17102679	PAGE#
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FILE NO:	DESIGNED BY:
DATE:	APPROVED BY:

FIGURE 3
PROPOSED MONITROING WELL LOCATIONS

SAC & FOX TRUCK STOP
1346 US 75 HIGHWAY
POWHATTEN, KANSAS

ATTACHMENT D

Lab Data

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

December 03, 2015

Meredith Watson
TERRANEXT
11904 Grandview Road
Grandview, MO 64030

RE: Project: SAC & FOX
Pace Project No.: 60207920

Dear Meredith Watson:
Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Emily Webb for
Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Mr. Christopher Kinn, TERRANEXT

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: SAC & FOX
Pace Project No.: 60207920

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 15-016-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

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SAMPLE SUMMARY

Project: SAC & FOX
Pace Project No.: 60207920

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60207920001	GW-MW	Water	11/19/15 12:32	11/20/15 12:35
60207920002	GW-P2	Water	11/19/15 16:26	11/20/15 12:35
60207920003	GW-P3	Water	11/19/15 16:04	11/20/15 12:35
60207920004	GW-P4	Water	11/20/15 10:33	11/20/15 12:35
60207920005	TRIP BLANK	Water	11/19/15 12:00	11/20/15 12:35

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SAMPLE ANALYTE COUNT

Project: SAC & EOX
Pace Project No.: 60207920

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60207920001	GW-MW	EPA 8260	EAG	15
60207920002	GW-P2	EPA 8260	EAG	15
60207920003	GW-P3	EPA 8260	EAG, JDH	15
60207920004	GW-P4	EPA 8260	EAG, JDH	15
60207920005	TRIP BLANK	EPA 8260	EAG	15

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ANALYTICAL RESULTS

Project: SAC & FOX
Pace Project No.: 60207920

Sample: GW-MW Lab ID: 60207920001 Collected: 11/19/15 12:32 Received: 11/20/15 12:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV GRO and Oxygenates	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	ug/L	100	100		12/02/15 17:47	994-05-8	
Benzene	4580	ug/L	100	100		12/02/15 17:47	71-43-2	
tert-Butyl Alcohol	2750	ug/L	1000	100		12/02/15 17:47	75-65-0	
Diisopropyl ether	ND	ug/L	100	100		12/02/15 17:47	108-20-3	
Ethylbenzene	2550	ug/L	100	100		12/02/15 17:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	100		12/02/15 17:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	100	100		12/02/15 17:47	1634-04-4	
Naphthalene	ND	ug/L	1000	100		12/02/15 17:47	91-20-3	
Toluene	11300	ug/L	100	100		12/02/15 17:47	108-88-3	
TPH-GRO	115000	ug/L	50000	100		12/02/15 17:47		
Xylene (Total)	13400	ug/L	300	100		12/02/15 17:47	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	80-120	100		12/02/15 17:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%	80-120	100		12/02/15 17:47	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	82-119	100		12/02/15 17:47	17060-07-0	
Preservation pH	1.0		0.10	100		12/02/15 17:47		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: SAC & FOX
Pace Project No.: 60207920

Sample: GW-P2 Lab ID: 60207920002 Collected: 11/19/15 16:26 Received: 11/20/15 12:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV GRO and Oxygenates	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	ug/L	50.0	50		12/02/15 18:01	994-05-8	
Benzene	6940	ug/L	50.0	50		12/02/15 18:01	71-43-2	
tert-Butyl Alcohol	2570	ug/L	500	50		12/02/15 18:01	75-65-0	
Diisopropyl ether	ND	ug/L	50.0	50		12/02/15 18:01	108-20-3	
Ethylbenzene	906	ug/L	50.0	50		12/02/15 18:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	50		12/02/15 18:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	50.0	50		12/02/15 18:01	1634-04-4	
Naphthalene	ND	ug/L	500	50		12/02/15 18:01	91-20-3	
Toluene	2830	ug/L	50.0	50		12/02/15 18:01	108-88-3	
TPH-GRO	42800	ug/L	25000	50		12/02/15 18:01		
Xylene (Total)	2810	ug/L	150	50		12/02/15 18:01	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	50		12/02/15 18:01	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	50		12/02/15 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	82-119	50		12/02/15 18:01	17060-07-0	
Preservation pH	5.0		0.10	50		12/02/15 18:01		pH

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ANALYTICAL RESULTS

Project: SAC & FOX
Pace Project No.: 60207920

Sample: GW-P3 Lab ID: 60207920003 Collected: 11/19/15 16:04 Received: 11/20/15 12:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV GRO and Oxygenates	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	ug/L	1.0	1		12/03/15 06:01	994-05-8	
Benzene	968	ug/L	20.0	20		12/03/15 13:56	71-43-2	
tert-Butyl Alcohol	ND	ug/L	10.0	1		12/03/15 06:01	75-65-0	
Diisopropyl ether	ND	ug/L	1.0	1		12/03/15 06:01	108-20-3	
Ethylbenzene	429	ug/L	20.0	20		12/03/15 13:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:01	1634-04-4	
Naphthalene	68.9	ug/L	10.0	1		12/03/15 06:01	91-20-3	
Toluene	2380	ug/L	20.0	20		12/03/15 13:56	108-88-3	
TPH-GRO	22500	ug/L	10000	20		12/03/15 13:56		
Xylene (Total)	2220	ug/L	60.0	20		12/03/15 13:56	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		12/03/15 06:01	2037-26-5	
4-Bromofluorobenzene (S)	97	%	80-120	1		12/03/15 06:01	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	82-119	1		12/03/15 06:01	17060-07-0	
Preservation pH	5.0		0.10	1		12/03/15 06:01		pH

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ANALYTICAL RESULTS

Project: SAC & FOX
Pace Project No.: 60207920

Sample: GW-P4 Lab ID: 60207920004 Collected: 11/20/15 10:33 Received: 11/20/15 12:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV GRO and Oxygenates	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	ug/L	1.0	1		12/03/15 06:16	994-05-8	
Benzene	ND	ug/L	1.0	1		12/03/15 14:10	71-43-2	
tert-Butyl Alcohol	ND	ug/L	10.0	1		12/03/15 06:16	75-65-0	
Diisopropyl ether	ND	ug/L	1.0	1		12/03/15 06:16	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		12/03/15 14:10	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:16	1634-04-4	
Naphthalene	ND	ug/L	10.0	1		12/03/15 06:16	91-20-3	
Toluene	ND	ug/L	1.0	1		12/03/15 14:10	108-88-3	
TPH-GRO	ND	ug/L	500	1		12/03/15 14:10		
Xylene (Total)	ND	ug/L	3.0	1		12/03/15 14:10	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		12/03/15 06:16	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	1		12/03/15 06:16	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	82-119	1		12/03/15 06:16	17060-07-0	
Preservation pH	1.0		0.10	1		12/03/15 06:16		

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ANALYTICAL RESULTS

Project: SAC & FOX
Pace Project No.: 60207920

Sample: TRIP BLANK Lab ID: 60207920005 Collected: 11/19/15 12:00 Received: 11/20/15 12:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV GRO and Oxygenates	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	ug/L	1.0	1		12/03/15 06:30	994-05-8	
Benzene	ND	ug/L	1.0	1		12/03/15 06:30	71-43-2	
tert-Butyl Alcohol	ND	ug/L	10.0	1		12/03/15 06:30	75-65-0	
Diisopropyl ether	ND	ug/L	1.0	1		12/03/15 06:30	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		12/03/15 06:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/03/15 06:30	1634-04-4	
Naphthalene	ND	ug/L	10.0	1		12/03/15 06:30	91-20-3	
Toluene	ND	ug/L	1.0	1		12/03/15 06:30	108-88-3	
TPH-GRO	ND	ug/L	500	1		12/03/15 06:30		CU
Xylene (Total)	ND	ug/L	3.0	1		12/03/15 06:30	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		12/03/15 06:30	2037-26-5	
4-Bromofluorobenzene (S)	100	%	80-120	1		12/03/15 06:30	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	82-119	1		12/03/15 06:30	17060-07-0	
Preservation pH	1.0		0.10	1		12/03/15 06:30		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: SAC & FOX
Pace Project No.: 60207920

QC Batch: MSV/73115 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV MO GRO Oxygenates
Associated Lab Samples: 60207920001, 60207920002

METHOD BLANK: 1677401 Matrix: Water
Associated Lab Samples: 60207920001, 60207920002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/02/15 12:39	
Diisopropyl ether	ug/L	ND	1.0	12/02/15 12:39	
Ethyl-tert-butyl ether	ug/L	ND	1.0	12/02/15 12:39	
Ethylbenzene	ug/L	ND	1.0	12/02/15 12:39	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/02/15 12:39	
Naphthalene	ug/L	ND	10.0	12/02/15 12:39	
tert-Amylmethyl ether	ug/L	ND	1.0	12/02/15 12:39	
tert-Butyl Alcohol	ug/L	ND	10.0	12/02/15 12:39	
Toluene	ug/L	ND	1.0	12/02/15 12:39	
TPH-GRO	ug/L	ND	500	12/02/15 12:39	
Xylene (Total)	ug/L	ND	3.0	12/02/15 12:39	
1,2-Dichloroethane-d4 (S)	%	99	82-119	12/02/15 12:39	
4-Bromofluorobenzene (S)	%	100	80-120	12/02/15 12:39	
Toluene-d8 (S)	%	103	80-120	12/02/15 12:39	

LABORATORY CONTROL SAMPLE: 1677402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.4	92	80-120	
Diisopropyl ether	ug/L	20	18.1	90	71-126	
Ethyl-tert-butyl ether	ug/L	20	19.1	95	79-121	
Ethylbenzene	ug/L	20	18.2	91	80-120	
Methyl-tert-butyl ether	ug/L	20	20.1	101	74-120	
Naphthalene	ug/L	20	19.1	95	73-128	
tert-Amylmethyl ether	ug/L	20	18.9	94	80-120	
tert-Butyl Alcohol	ug/L	100	107	107	65-131	
Toluene	ug/L	20	18.0	90	80-120	
TPH-GRO	ug/L	4000	3720	93	53-122	
Xylene (Total)	ug/L	60	55.0	92	80-120	
1,2-Dichloroethane-d4 (S)	%			103	82-119	
4-Bromofluorobenzene (S)	%			97	80-120	
Toluene-d8 (S)	%			101	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: SAC & FOX
Pace Project No.: 60207920

QC Batch: MSV/73126 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV MO GRO Oxygenates
Associated Lab Samples: 60207920003, 60207920004, 60207920005

METHOD BLANK: 1677605 Matrix: Water
Associated Lab Samples: 60207920003, 60207920004, 60207920005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/03/15 05:47	
Diisopropyl ether	ug/L	ND	1.0	12/03/15 05:47	
Ethyl-tert-butyl ether	ug/L	ND	1.0	12/03/15 05:47	
Ethylbenzene	ug/L	ND	1.0	12/03/15 05:47	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/03/15 05:47	
Naphthalene	ug/L	ND	10.0	12/03/15 05:47	
tert-Amylmethyl ether	ug/L	ND	1.0	12/03/15 05:47	
tert-Butyl Alcohol	ug/L	ND	10.0	12/03/15 05:47	
Toluene	ug/L	ND	1.0	12/03/15 05:47	
TPH-GRO	ug/L	ND	500	12/03/15 05:47	
Xylene (Total)	ug/L	ND	3.0	12/03/15 05:47	
1,2-Dichloroethane-d4 (S)	%	100	82-119	12/03/15 05:47	
4-Bromofluorobenzene (S)	%	99	80-120	12/03/15 05:47	
Toluene-d8 (S)	%	98	80-120	12/03/15 05:47	

LABORATORY CONTROL SAMPLE: 1677606

Parameter	Units	Spike Conc	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.4	92	80-120	
Diisopropyl ether	ug/L	20	18.4	92	71-126	
Ethyl-tert-butyl ether	ug/L	20	18.9	95	79-121	
Ethylbenzene	ug/L	20	18.9	94	80-120	
Methyl-tert-butyl ether	ug/L	20	20.1	100	74-120	
Naphthalene	ug/L	20	18.5	93	73-128	
tert-Amylmethyl ether	ug/L	20	18.6	93	80-120	
tert-Butyl Alcohol	ug/L	100	103	103	65-131	
Toluene	ug/L	20	19.3	97	80-120	
TPH-GRO	ug/L	4000	3220	80	53-122	
Xylene (Total)	ug/L	60	59.0	98	80-120	
1,2-Dichloroethane-d4 (S)	%			98	82-119	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1677607 1677608

Parameter	Units	60207823007 Result	MS Spike Conc	MSD Spike Conc	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	0.35J	20	20	17.9	18.3	88	90	46-155	2	13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: SAC & FOX
Pace Project No.: 60207920

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1677607 1677608

Parameter	Units	60207823007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diisopropyl ether	ug/L	ND	20	20	16.0	17.6	80	88	61-136	9	44	
Ethyl-tert-butyl ether	ug/L	ND	20	20	16.2	18.0	81	90	60-142	11	45	
Ethylbenzene	ug/L	ND	20	20	17.5	17.3	87	87	51-148	1	14	
Methyl-tert-butyl ether	ug/L	74.7	20	20	112	116	184	205	41-156	4	17	M1
Naphthalene	ug/L	ND	20	20	17.9	18.8	89	94	41-148	5	33	
tert-Amylmethyl ether	ug/L	0.69J	20	20	17.2	18.7	83	90	66-136	8	22	
tert-Butyl Alcohol	ug/L	10.9	100	100	103	110	93	99	47-141	6	38	
Toluene	ug/L	ND	20	20	18.1	18.1	90	90	47-149	0	16	
Xylene (Total)	ug/L	ND	60	60	53.1	53.7	88	90	39-158	1	15	
1,2-Dichloroethane-d4 (S)	%						103	104	82-119			
4-Bromofluorobenzene (S)	%						99	98	80-120			
Toluene-d8 (S)	%						101	98	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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www.pacelabs.com

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QUALITY CONTROL DATA

Project: SAC & FOX
Pace Project No.: 60207920

QC Batch: MSV/73139
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV MO GRO Oxygenates
Associated Lab Samples: 60207920003, 60207920004

METHOD BLANK: 1678123
Matrix: Water
Associated Lab Samples: 60207920003, 60207920004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/03/15 12:12	
Ethylbenzene	ug/L	ND	1.0	12/03/15 12:12	
Toluene	ug/L	ND	1.0	12/03/15 12:12	
TPH-GRO	ug/L	ND	500	12/03/15 12:12	
Xylene (Total)	ug/L	ND	3.0	12/03/15 12:12	
1,2-Dichloroethane-d4 (S)	%	98	82-119	12/03/15 12:12	
4-Bromofluorobenzene (S)	%	98	80-120	12/03/15 12:12	
Toluene-d8 (S)	%	101	80-120	12/03/15 12:12	

LABORATORY CONTROL SAMPLE: 1678124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.8	89	80-120	
Ethylbenzene	ug/L	20	17.7	89	80-120	
Toluene	ug/L	20	18.8	94	80-120	
TPH-GRO	ug/L	4000	4360	109	53-122	
Xylene (Total)	ug/L	60	54.5	91	80-120	
1,2-Dichloroethane-d4 (S)	%			97	82-119	
4-Bromofluorobenzene (S)	%			99	80-120	
Toluene-d8 (S)	%			103	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: SAC & FOX
Pace Project No.: 60207920

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/73115

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

CU The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SAC & FOX
Pace Project No.: 60207920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60207920001	GW-MW	EPA 8260	MSV/73115		
60207920002	GW-P2	EPA 8260	MSV/73115		
60207920003	GW-P3	EPA 8260	MSV/73126		
60207920003	GW-P3	EPA 8260	MSV/73139		
60207920004	GW-P4	EPA 8260	MSV/73126		
60207920004	GW-P4	EPA 8260	MSV/73139		
60207920005	TRIP BLANK	EPA 8260	MSV/73126		

Pace Analytical www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60207920

60207920

Client Name: Tetra Tech

Optional	
Proj Due Date:	
Proj Name:	

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☑

Tracking #: Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☒ Seals Intact: Yes ☐ No ☒

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☒ None ☐ Other ☐

Thermometer Used: CF +0.5 T-239 / CF +0.5 T-262 Type of Ice: (Wet) Blue None ☐ Samples received on ice, cooling process has begun. (circle one)

Cooler Temperature: 2.9

Temperature should be above freezing to 6°C

Date and Initials of person examining contents: JB 11/20

Chain of Custody present:	☒Yes	☐No	☐N/A	1.
Chain of Custody filled out:	☒Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☒Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☒Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☒Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time requested:	☐Yes	☒No	☐N/A	7.
Sufficient volume:	☒Yes	☐No	☐N/A	8.
Correct containers used:	☒Yes	☐No	☐N/A	
Pace containers used:	☒Yes	☐No	☐N/A	9.
Containers intact:	☒Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes	☐No	☒N/A	12.
Sample labels match COC:	☒Yes	☐No	☐N/A	
Includes date/time/ID/analyses Matrix: WT				13.
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	☒Yes	☐No		Initial when completed / Lot # of added preservative
Trip Blank present:	☒Yes	☐No	☐N/A	
Pace Trip Blank lot # (if purchased): Cowrd				15.
Headspace in VOA vials (>6mm):	☐Yes	☒No	☐N/A	
				16.
Project sampled in USDA Regulated Area	☐Yes	☐No	☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes	☐No	☒N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: AAF Date: 11/20/15

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A: Required Client Information:	Section B: Required Project Information:	Section C: Invoice Information:
Company: Terranext	Report To: Meredith Watson	Attention:
Address: 11904 Grandview Road	Copy To:	Company Name:
Grandview, MO 64030		Address:
Email: mwatson@terranext.net	Purchase Order #:	Pace Quote:
Phone: 816-289-8946 Fax:	Project Name: Sec8For	Pace Project Manager: alice.flanagan@pacelabs.com
Requested Due Date:	Project #:	Pace Profile #:

Regulatory Agency:

State / Location: KS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	8260 VOCs	BTex	Naph	Oxygenates	TPH GRO	Residual Chlorine (Y/N)	6020 7420
1	GW-MW	WT	G			11/19/15	1232		3				X						X	X	X	X			1) DGAH CW1
2	GW-PZ					11/19/15	1626		2																2) DGAH CW2
3	GW-P3					11/19/15	1604		3																3) DGAH CW3
4	GW-P4					11/20/15	1033		3																CW4
5	TRIP BLANK	V	G			11/19/15	1200		2				V						X						4) DGAH CW5
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MPW / Terranext	11/20/15	1235	[signature]	11/20/15	1235	2-0	Y	C	Y

SAMPLER NAME AND SIGNATURE:

PRINT Name of SAMPLER: Meredith P. Watson

SIGNATURE of SAMPLER: [signature] DATE Signed: 11/20/15

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ATTACHMENT E

Field Notes

11/19/15 Sac & Fox Truck Stop MPW

1000 M. Watson and Robert Tiemann (PSA) onsite for groundwater investigation. Set up PID. Meet with station manager about activities and possible locations of unmarked utilities product lines.

1013 Conduct tailgate H+S meeting. Set up to probe location west of USTs.

1017 PID calibration 0/100

1030 P1 location was within tank basin. Backing west 5 ft. Mark Junker, Sac + Fox environmental management on-site

1050 Theresa Armbruster (Sac + Fox) and Robert Trump (TPS) on-site.

1120 Refusal at 23'. Installing temporary casing.

1150 Unable to set screen. Changing to screen point sampling.

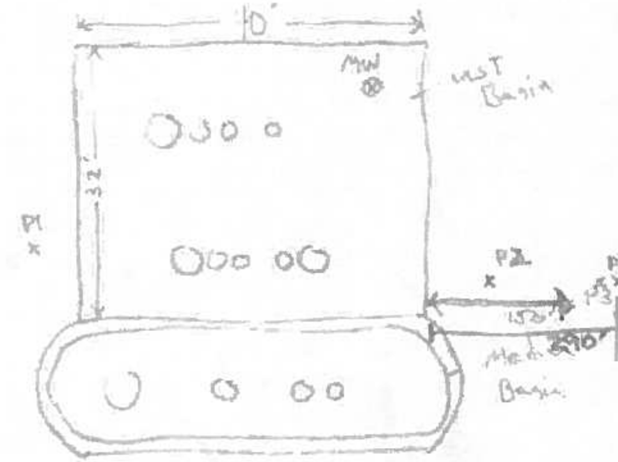
1215 Gauge tank pit monitoring well. SWL = 5.92 ft btoc, TD = 12.31 ft casing - 4 inch purge limit = 13 gal

1232 Sample time for GW-MW after purging 15 gallons. Strong odor sheen.

1245 screen point sampler dry. Moving to P2 location east of USTs.

MPW

MPW 17102679 11/17



1300 P2 for groundwater only (P2). Not field screened.

1350 Refusal at 20' bgs. Installed temporary casing. Unlikely to produce groundwater

1400 Confer with property representatives to recommend installation of permanent monitoring wells.

1410 Set up to field screen near wet well located between USTs and reservoir.

1445 P3 location still rejected. Moving ~~to~~ 140' + farther east from P3 (P4) which is 150 ft east of UST basin

MPW

11/19/15 Soc & Fox Track Stop MPW

1530 Installed temporary casing at P4. (East P3)
1545 Robert Trump offsite.
1554 SWL at P3 = 9.4 ft bgs.
1556 SWL at P2 = 19.2 ft bgs.
1604 collect P3 sample using check valve and tubing.
1626 Collect P2 sample.
1645 Samples on ice. P4 location was dry. Leaving temporary casing. Locations P1, P2, and P3 were plugged with bentonite chips after removing casing and capped with concrete to match surrounding surface. PSA and Terracon offsite.

MPW

MPW 17-1026629 11/20/15

1025 M. Watson on-site to collect ground water from P4 location.
1028 SWL @ P4 = 11.2' bgs
1033 Sample time for GW-P4 collected using check valve and tubing.
1045 P4 plugged with bentonite chips after removing casing. Samples on ice. Terracon offsite.
1235 Four samples + trip blank submitted to Pace Analytical.

MPW

SITE HEALTH AND SAFETY PLAN

PROJECT NAME: Sac & Fox Truck Stop **PROJECT NUMBER:** 17102679

A. **Site Description**

Dates: November 2015 **Location:** 1346 US 75 Hwy Powhattten, Kansas

Site Hazards: automotive traffic, slips, trips, falls, and exposure to BTEX

Area Affected: Retail gasoline station

Surrounding Population: Commercial

Weather Conditions: Mild to severe winter weather

B. **Safety Considerations - The safety concerns and objectives of the initial and following entries to the impacted area are to:**

Be aware of traffic at the gasoline station and exposure to contaminated ground water.

C. **On Site Coordination - The following personnel are designated to carry out the stated job functions during the field investigation activities:**

Project Manager: Christopher Kinn
Site Safety Officer: Meredith Watson
Field Team Leader: Meredith Watson
Field Team Members: Meredith Watson

State Agency Representatives: Mark Junker, Sac & Fox Nation Env. Dept.

Client Representatives: Robert Trump, TPS

Contractors: PSA

D. **On Site Control - The Field Team Leader has been designated to coordinate access control and security on site. At a minimum, an exclusion zone of 25 horizontal feet will be enforced for all unauthorized personnel during drilling activities.**

SITE HEALTH AND SAFETY PLAN (Continued)

E. **Hazard Evaluation - The following substance(s) are known or suspected to be on the site. The primary hazards of each are identified.**

Substance Involved	Concentration	Primary Hazards
Benzene	unknown	human carcinogen

F. **Personal Protective Equipment - Based on the evaluation of potential hazards, the following levels of personal protection have been designated for the applicable scope of work:**

Level D - Includes site protective clothing, steel-toe boots, protective gloves, hard hat when necessary.
Level C - Includes air purifying cartridge respirator and protective clothing - the level of protection will be determined by the on site Field Team Leader.

G. **Personal Monitoring - The following personal monitoring will be in effect on site:**

A PID will not be utilized on-site. Visual and olfactory observation will be utilized.

H. **Emergency Medical Care - The following first aid equipment is available on site at the following locations:**

First Aid Kit On BE&K/Terranext vehicle
Eye Wash On BE&K/Terranext vehicle

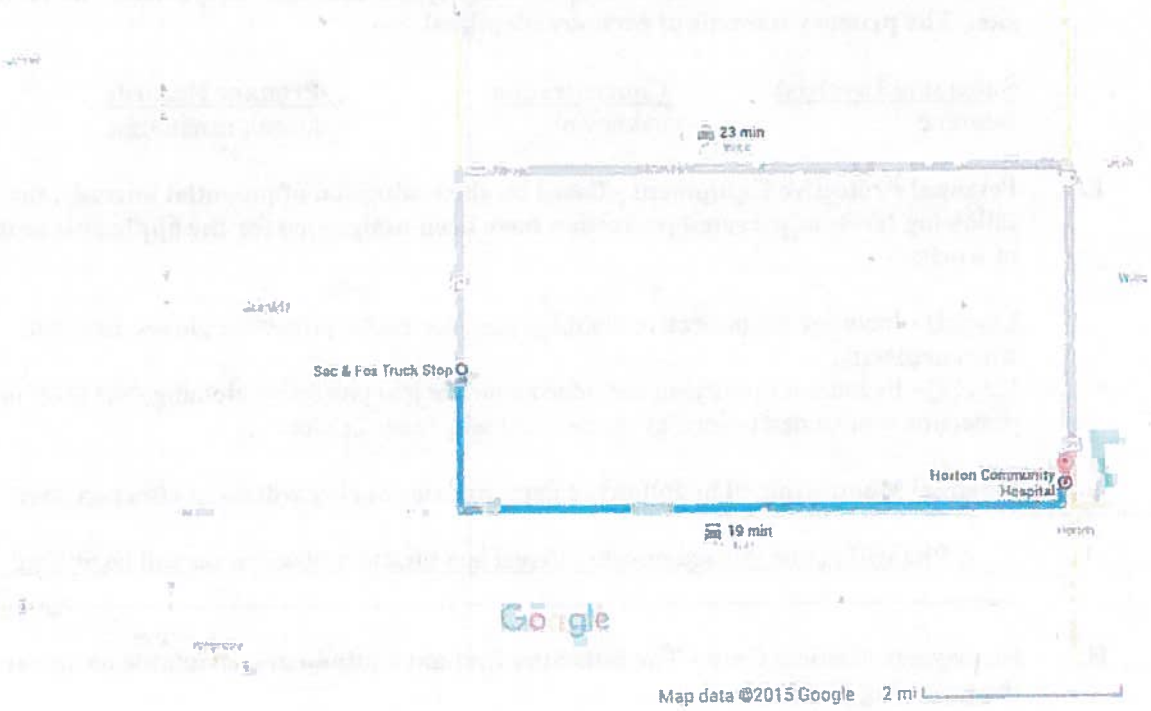
is the designated facility for emergency medical care.

List of Emergency Phone Numbers:

Agency	Phone Number	Contact
EMS	911	
Horton Community Hospital	785-486-2642	ER

Horton Community Hospital is located at 240 W 18th St in Horton, KS 66439

Google Maps Sac & Fox Truck Stop to Horton Community Hospital 240 W 18th St. Horton Drive 13.6 miles, 19 min



Sac & Fox Truck Stop

Continue to US-75 S

1 min (0.3 mi)

1. Head east

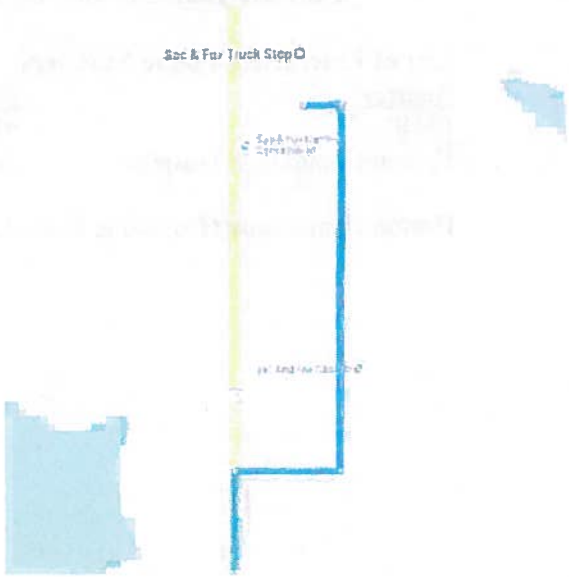
121 ft

2. Turn right toward US-75 S

0.2 mi

3. Turn right toward US-75 S

335 ft



Take KS-20 E/110th St to 2nd Ave W in Horton

15 min (12.9 mi)

4. Turn left onto US-75 S

5. Turn left onto KS-20 E/110th St

Continue on 2nd Ave W to your destination

2 min (0.4 mi)

6. Turn left onto 2nd Ave W

7. Turn right onto W 18th St

8. Turn left
   Destination will be on the left

Horton Community Hospital

240 W. 18th Street

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

I. **All site personnel have read the above plan and are familiar with its provisions:**

Name	Signature	Date
Robert Tiernan		11-19-15
Merrill Watson		11-19-15
Mark Tench		11-19-15
Robert L. Trump		11-19-15
Theresa Armbruster		11-19-15

Douglas E Drouare, CPG
USEPA, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

August 20, 2015
Revised June 22, 2016

RE: Leaking Underground Storage Tank
Sac & Fox Truck Stop
1346 US Hwy 75
Powhattan, Kansas 66527

Dear Mr. Drouare,

Sac and Fox Truck Stop was built in 1998 by M.A.C. Corporation, Independence MO. Robert Andrew who is still currently with M.A.C. was involved at the time of construction. Four fuel tanks were installed at that time. Documentation (Attachment 1) show that the tanks were XERXES double wall tanks with a 30 Year warranty.

Here is a timeline of events and actions taken regarding the ruptured fuel tank at Sac and Fox Truck Stop. (Attachment 2) is a diagram of the Truck Stop and where tanks set on the property for reference.

- July 20, 2015 Phone call from staff stating tank alarm was going off at approximately 9:30 p.m. Amanda responded by having them check fuel levels and the north tank was below alarm level and needed fuel to siphon from the South tank. A few minutes later staff calls back and says alarm is still going off, Amanda then has them check water levels. At this time we now have a vehicle in the parking lot that will not stay running. Immediately all pumps are shut off at approximately 9:35p.m. Any car fueling with midgrade fuel during that 5 minute period would not run. Police, fire, emergency management and all other personnel needed responded. Parking lot was evacuated for everyone's safety until we could assess the situation. We knew water was coming from somewhere but had no idea where from. On site personnel spent about an hour trying to determine water source. Our tank monitoring print out showed no water in the fuel at the beginning of the day.

- July 22, 2015 Robert Trump with Adler Tank Rentals, brought a Frac tank and pumped approximately 19,000 gallons of fuel and water into the Frac tank. At this time we could tell tank was ruptured and the probe was stuck in the ground from the pressure and that ground water was the responsible water source. At this time fuel needs to separate from water for 2-3 days to determine how much fuel was recovered. Then samples need to be sent for testing.

- July 24, 2015 Robert Trump with Adler returns to take samples of fuel and water for testing. We also determine that on July 20, 2015 Midgrade tank totals were

5,882.00 gallons, we sold 2185.11 gallons of midgrade fuel and that 2357.00 gallons of midgrade fuel was in the Frac tank, (Attachment 3) leaving 1339.89 gallons of midgrade fuel unaccounted for. Water and fuel samples are taken to Pace Analytical.

- July 27, 2015 Results of fuel and water samples come back from Pace Analytical. (Attachment 4)

- Fuel can be recovered but need to determine who will recover fuel from Frac tank and how to properly handle the contaminated water. Activated carbon vs. reclaim facility.

- July 27, 2015 Tankology Inc. comes to scope tanks and determine possible cause and damage. North midgrade tank is ruptured and south midgrade has a crack on top where vent pipe had been run over recently. South and north tanks are manifolded. Appears water pressure from excessive ground water caused pea gravel to erode, allowing tank to rupture.

- August 6, 2015 Estimates come from Robert Trump with Adler to determine procedure of disposing of contaminated water.

- August 11, 2015 Tribal Council approved to have midgrade fuel recovered from Frac tank by HAAG oil and to have contaminated water hauled to a reclaim facility.

- August 18, 2015 2000 gallons of fuel is recovered from frac tank and blended with 1250 gallons of premium fuel to make fuel the correct octane level. (Attachment 5)

- August 19, 2015 Adler hauls contaminated water to reclaiming facility (Attachment 6). Also delivers a 300 gallon bladder for the ongoing process of reclaiming fuel from ruptured tank. Waiting on estimate to purchase a diaphragm pump and a compressor.

- At this time we know that there is still fuel in the ground because we have stuck the tank. Our thought is that it is in overfill tanks and that we will recover most of the missing fuel.

- Ongoing, will now start to pump bi-weekly out of ground to recover any fuel missing. Will store in bladder, let fuel separate from water and keep track of all product recovered each time. This procedure could take up to 12 months or until we can no longer recover any more fuel. After a period of time when there is no more recovery of product we will need to have soil tested.

- At this time we are possibly considering properly abandoning the North ruptured tank which is no longer in use.

- August 27, 2015 Ethan with PEI capped off manifold to south tank so we could start operating north tank. Reclaimed 442 gallons of fuel. (tank reading) (Attachment 7)

- August 28, 2015 Josh with PEI flushed fuel lines and recovered 150 gallons of fuel. Remaining gallons of fuel unaccounted for now totaling 746 gallons.

- Estimate received 9-21-2015 from Total Petroleum Services for Consultant, Geologist and site characterization. Waiting for Tribal Councils approval to continue with clean up/compliance efforts and free product recovery.

- Ace North American Claims is insurance covering remediation only. Contact Brian Hong 866-635-5698.

- Sac and Fox Truck Stop has been operational since incident on 7-20-2015 excluding the use of the ruptured north midgrade tank.

- November 19, 2015 Geologist take analytical samples for testing and drill for 4 Temporary Piezometers. Robert Trump from Total Petroleum Services, Robert Andrew from M.A.C. Corporation who installed the tanks, Ethan Kappler with P.E.I. and Mark Junker with Tribal EPA were all here. Appears contamination is within the Truck Stop property. Ruptured tank video was viewed by all, video shows a rupture approximately one third of the way up on north side approximately 7-8 inches in diameter. I was to receive test results in 10-12 days.

- January 18, 2016 have not received any results from analytical testing or piezometers. Still no response from Robert Andrew on Xerxes warranty.

- February 16, 2016 Received Site Investigation Report of general soil characteristics of the subsurface and initial impacts to the soil and groundwater due to failing gasoline underground storage tank. Terranext also provided cost to install 5 permanent monitoring wells, collect groundwater samples, complete an initial conceptual site model (CSM), screen and model groundwater data to determine soil vapor inhalation risk at Sac and Fox Truckstop. (Attachment 8)

- February 29, 2016 Meeting onsite at Sac and Fox Truckstop to discuss next steps and overall plan to continue with finalization of remediation and repair or abandonment of ruptured fuel tank. In attendance were Randy Dolifka PEI, William Millard Crawford and Company, Robert Trump Total Petroleum Services, Chris Kinn Geologist, Robert Andrews MAC Corp., Lisa Montgomery Sac and Fox EPA, Gary Bahr Sac and Fox Tribal Council, Theresa Armbruster Sac and Fox Truck Stop Manager, Amanda Kramer Sac and Fox Asst. Manager and VIA phone Anita Ketola ACE Insurance. It was unanimous by all in

attendance that the only way to determine the cause of the ruptured fuel tank would be to investigate the site. After determining the cause, being impact or defect then the decision will be made to either repair the existing Xerses double wall tank with a 30 year warranty which was installed in 1998 and have it recertified or properly abandon the tank which would be the safest option and install a new tank in a new site. While the tank site is open we will be prepared to deal with free product, define plume and install wells. Initially 5 wells were suggested but was determined 2 would be sufficient. All work pending estimates and approval from Insurance Companies.

- March 21, 2016 Received estimate to repair ruptured fuel tank.
- April 20, 2016 Robert Trump Total Petroleum Services responds to Region 7.(Attachment 9)
- April 22, 2016 Insurance needing a breakdown of proposed estimate and an estimate for a replacement tank from M.A.C. Corp.
- May 11, 2016 Currently waiting for Estimates to install new tank if that determination is made immediately following the excavation of the northern area of the tank exposing the ruptured tank.
- May 17, 2016 Received estimate from Randy Dolifka PEI for new tank not sure of status on estimate from Robert Andrew MAC Corp.
- May 20, 2016 Received revised estimate from M.A.C. Corp.
- May 25, 2016 Tribal Council approved the excavation work proposed by M.A.C. Corp. Need to contact Robert Andrew to confirm a start date.
- June 8, 2016 Robert Andrew, M.A.C. Corp. still trying to coordinate with XERXES.
- June 16, 2016 M.A.C. Corp has a start date July 11, 2016 need to confirm with all involved.
- June 20, 2016 Confirmed with M.A.C. Corp. Everyone would be available for July 11, 2016 start date.
- June 21, 2016 contacted Robert Trump about providing Region 7 with an acceptable form of reporting.

Sincerely,

Theresa Armbruster
Manager, Sac and Fox Truck Stop

Attachments 1-8a are attached separately
Attachment 8b is attached separately
Attachment 9

Sac & Fox Truck Stop

From: Robert L. Trump [rtrump@totalpetroleumservices.com]
Sent: Wednesday, April 20, 2016 8:24 AM
To: Drouare, Douglas; mark.junker@sacfoxenviro.org; Sac & Fox Truck Stop; L.Montgomery
Cc: Randy Carlson; Scott O'Neal; mmcerlan@kdheks.gov; Hayes, Scott; Bosch, Raymond; koorus.tahghighi@amec.com; ckinn@terranext.net
Subject: RE: Leaking Underground Storage Tank Site - Sac & Fox Truck Stop

Good morning,

Robert Trump, Total Petroleum Services LLC responding. We were contracted to remove free product and contaminated waters from the LUST in question.

Since then we have performed exploratory work with temporary peizometers to ascertain the geology of the subsurface and gain insight into the outer boundaries of contamination.

In March a meeting with Sac & Fox, Total Petroleum, Representatives from insuring parties, our contracted geologist Terranext, and the original installer MAC was held to form a concesus between the parties for the next steps.

At that time MAC put forward a work plan to excavate the Northern area of the tank so a representative from Xerxes, tank manufacturer, could make a determination regarding cause of breach and possible repair of tank.

Total Petroleum advanced a work plan to support the excavation activities with a Vac system to remove any additional free product and/or ground water during excavation and inspection and/or repairs.

Total Petroleum/Terranext also advanced a work plan for soil vapor monitoring and installation of permanent monitoring wells for extended ground water sampling.

To date: Antea Group has approved Total Petroleums work plan on behalf of Ace-Chub insurers and we have received an approval letter from Chub this week.

We were contacted last Friday by AMEC Environmental who we learned has now been retained by Crawford Group to also review all plans to determine if they are reasonable. A conference call was held Monday between AMEC, Total Petroleum Services, and Terranext, to explain our work plan for remedial activities.

As of today, we have not received this approval from AMEC/Crawford to move forward.

We also do not know if MAC has submitted their work plan for tank inspection by excavation, flowable fill closure, or complete tank removal.

I will be out of the office until Friday. I am reachable by cell, text, or email to answer any questions you may have.

Sincerely,